ORDER NO.MKE0201401C1

Service Manual

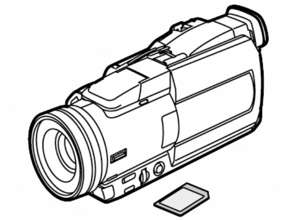
Digital Video Camcorder

MultiMediaCard™

Panasonic Mini DV CERTIFIED USB SD

PV-DV852

Q3-MECHANISM



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: Battery Pack; 7.2 V DC AC Adaptor; 7.9 V DC Consumption: Recording 6.5 W
RECORDING FORMAT	Digital Video SD Format
TAPE FORMAT	Mini DV Cassette Tape (Tape width 6.35 mm)
TAPE SPEED	SP mode : 18.812 mm/s LP mode : 12.555 mm/s Record/Playback Time: SP mode ; 80 min. with DVM80 LP mode ; 120 min. with DVM80
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lx
	MINIMUM REQUIRED ILLUMINATION: 12 lx
	LENS: 10 : 1 Power Zoom, Auto Iris, F1.8, Macro (Full Range AF) Focal Length; 3.85-38.5 mm Filter Diameter; 43.0 mm
	IMAGE SENSOR: 1/3.8-inch CCD Image Sensor
	VIEWFINDER: Colour Electronic Viewfinder 2.5-inch Colour LCD Monitor
VIDEO	RECORDING FORMAT: Digital Component
	TELEVISION SYSTEM: EIA Standard; 525 Lines, 60 Fields NTSC Colour Signal
	VIDEO OUTPUT LEVEL: 1.0 Vp-p, 75Ω S-VIDEO OUTPUT LEVEL: Y; 1.0 Vp-p, 75Ω C; 0.286 Vp-p, 75Ω VIDEO INPUT LEVEL: 1.0 Vp-p, 75Ω S-VIDEO INPUT LEVEL: Y; 1.0 Vp-p, 75Ω C; 0.286 Vp-p, 75Ω
Card Memory Functions	Recording Media: MultimediaCard, SD Memory Card Image Compression: JPEG Video Compression: MPEG4 Sound Compression: G.726

ITEM	SPECIFICATION
AUDIO	RECORDING FORMAT: PCM Digital Recording; 16 bit (48 kHz/2 ch) 12 bit (32 kHz/4 ch)
	MIC IN LEVEL: -50 dBV (0 dB = 1 V/Pa, 1 kHz) (Stereo mini jack) INPUT LEVEL (LINE): 316 mV, 10 kΩ or more OUTPUT LEVEL (LINE): 316 mV, 600Ω OUTPUT LEVEL (HEADPHONE): 77 mV, 100Ω
DIGITAL STILL PICTURE	Digital Still Picture Output, Control Signal Input / Output (Transfer rate: max. 115 kbps)
DIGITAL INTERFACE	DV Input/Output Terminal (i.LINK, 4 pin)
USB	Card reader/ writer function, USB 1.1 compliant (maximum 12Mbps)
MICROPHONE	Stereo
SPEAKER	1 round speaker ϕ20 mm
OPERATING TEMPERATURE	0-40 °C
OPERATING HUMIDITY	10-80 %
WEIGHT	Approx. 640 g(without Battery Pack and DV Cassette)
DIMENSIONS	Approx. 76 (W) x 87 (H) x 199 (D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack Unit 1 pc. Shoulder Strap 1 pc. DC Input Cable 1 pc. AC Mains Cable 1 pc. AV Cable 1 pc. Remote Controller 1 pc. Bottom-type Battery 1 pc. Hood Cap Unit 1 pc. CD ROM 1 pc. Hood Strap 1 pc. USB Connection Cable 1 pc. SD CARD

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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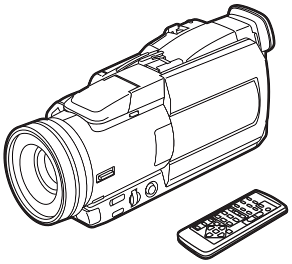
1 OPERATING GUIDE

Digital Palmcorder® MultiCam™ Camcorder

Panasonic®

Digital Video Camcorder

Operating Instructions



Model No. PV-DV852

MultiMediaCard™ SD™ Mini DV CERTIFIED USB™

Before attempting to connect, operate or adjust this product, please read these instructions thoroughly.
Spanish Quick Use Guide is included.
Guía para rápida consulta en español está incluida.

For USA assistance, please call: 1-800-211-PANA(7262) or send e-mail to : consumerproducts@panasonic.com

For Canadian assistance, please call: 1-800-561-5505 or visit us at www.panasonic.ca

LSQT0512A

Things You Should Know

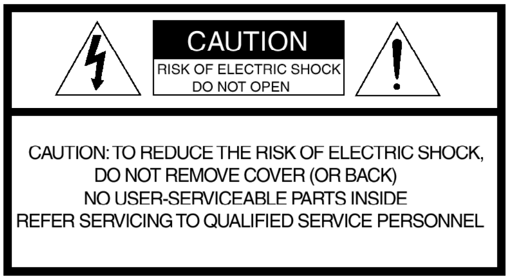
Date of Purchase
Dealer Purchased From
Dealer Address
Dealer Phone No.
Model No. PV-DV852
Serial No.

Thank you for choosing Panasonic!

You have purchased one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take time to fill in the information on the right.
The serial number is on the tag located on the underside of your Palmcorder. Be sure to retain this manual as your convenient Palmcorder information source.

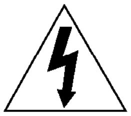
Safety Precautions

WARNING: TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
Your MiniDV Palmcorder is designed to record and play back in Standard Play (SP) mode and Long Play (LP) mode.
It is recommended that only cassette tapes that have been tested and inspected for use in Palmcorder with the MiniDV mark be used.

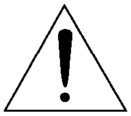


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

The above markings are located on the appliance bottom cover.

Note: This equipment has been tested and found to comply with Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when operated in a residential environment.
If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.
If necessary, consult the dealer or an experienced radio/TV technician for help. You may find the booklet, 'Something About Interference' available from FCC local regional offices helpful.

FCC Warning:

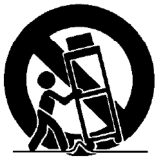
- To assure continued FCC compliance, the user must use only the provided shielded interfacing cable with ferrite core when connecting to computer in accordance with instruction herein. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate.

Declaration of Conformity
Model No.:PV-DV852
Trade Name: Panasonic
Responsible party: Matsushita Electric Corporation of America
Address: One Panasonic Way, Secaucus, New Jersey 07094
Telephone number:1-800-211-PANA (7262)
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

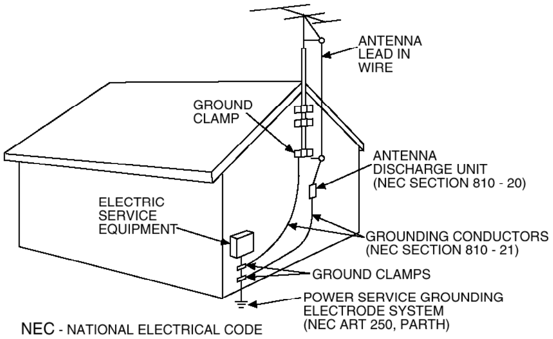
CAUTION: TO PREVENT FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
WARNING: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

Important Safeguards

1) Read Instructions—All the safety and operating instructions should be read before the unit is operated.
2) Retain Instructions—The safety and operating instructions should be retained for future reference.
3) Heed Warnings—All warnings on the unit and in the operating instructions should be adhered to.
4) Follow Instructions—All operating and maintenance instructions should be followed.
5) Cleaning—Unplug this video unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth for cleaning.
6) Attachments—Do not use attachments not recommended by the video product manufacturer as they may be hazardous.
7) Water and Moisture—Do not use this video unit near water- for example near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8) Accessories—Do not place this video unit on an unstable cart, stand, tripod, bracket, or table. The video unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video unit. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



9) Ventilation—Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video unit and to protect it from overheating. These openings must not be blocked or covered. Never place the video unit on a bed, sofa, rug, or other similar surface, or near or over a radiator or heat register. This video unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10) Power Sources—This video unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video units intended to be operated from battery power, or other sources, refer to the operating instructions.
11) Grounding or Polarization—This video unit may be equipped with either a polarized 2-wire AC (Alternating Current) line plug (a plug having one blade wider than the other) or 3-wire grounding type plug, a plug having a third (grounding) pin.
    The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
    The 3-wire grounding type plug will fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
12) Power-Cord Protection—Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords of plugs, convenience receptacles, and the point where they exit from the unit.
13) Outdoor Antenna Grounding—If an outside antenna or cable system is connected to the video unit, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Part 1 of the Canadian Electrical Code, in USA Section 810 of the National Electrical Code, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810 - 20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810 - 21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PARTH)
NEC - NATIONAL ELECTRICAL CODE

14) Lightning—For added protection of this video unit receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video unit due to lightning and power-line surges.
15) Power Lines—An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
16) Overloading—Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

Important Safeguards

17) Objects and Liquids — Never push objects of any kind into this video unit through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind onto the video unit.
18) Servicing — Do not attempt to service this video unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19) Damage Requiring Service — Unplug this video unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power-supply cord or plug is damaged.
    b. If any liquid has been spilled into, or objects have fallen onto, the video unit.
    c. If the video unit has been exposed to rain or water.
    d. If the video unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video unit to its normal operation.
    e. If the video unit has been dropped or the cabinet has been damaged.
    f. When the video unit exhibits a distinct change in performance — this indicates a need for service.
20) Replacement Parts — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
21) Safety Check— Upon completion of any service or repairs to this video unit, ask the service technician to perform safety checks to determine that the video unit is in safe operating order.

Precautions

USE & LOCATION

- **TO AVOID SHOCK HAZARD ...** Your Palmcorder and power supply should not be exposed to rain or moisture. Do not connect the power supply or operate your Palmcorder if it gets wet. Your Palmcorder has been designed for outdoor use, however, it is not designed to sustain direct exposure to water, rain, sleet, snow, sand, dust, or a direct splashing from a pool or even a cup of coffee. This action could permanently damage the internal parts of your Palmcorder. Do not attempt to disassemble this unit. There are no user serviceable parts inside. Unplug your Palmcorder from the power supply before cleaning.
- **DO NOT AIM YOUR PALMCORDER AT THE SUN OR OTHER BRIGHT OBJECTS**
- **DO NOT LEAVE THE PALMCORDER WITH THE EVF AIMED DIRECTLY AT THE SUN AS THIS MAY CAUSE DAMAGE TO THE INTERNAL PARTS OF THE EVF**
- **DO NOT EXPOSE YOUR PALMCORDER TO EXTENDED HIGH TEMPERATURE ...** Such as, in direct sunlight, inside a closed car, next to a heater, etc... This action could permanently damage the internal parts of your Palmcorder.
- **AVOID SUDDEN CHANGES IN TEMPERATURE ...** If the unit is suddenly moved from a cold place to a warm place, moisture may form on the tape and inside the unit.
- **DO NOT LEAVE YOUR PALMCORDER OR THE POWER SUPPLY TURNED ON WHEN NOT IN USE.**
- **STORAGE OF YOUR PALMCORDER ...** Store and handle your Palmcorder in a manner that will not subject it to unnecessary movement (avoid shaking and striking). Your Palmcorder contains a sensitive pick-up device which could be damaged by improper handling or storage.

CARE

- **TO CLEAN YOUR PALMCORDER ...** Do not use strong or abrasive detergents when cleaning your Palmcorder body.
- **TO PROTECT THE LENS ...** Do not touch the surface of the lens with your hand. Use a commercial Palmcorder lens solution and lens paper when cleaning the lens. Improper cleaning can scratch the lens coating.
- **TO PROTECT THE FINISH OF YOUR PALMCORDER ...** Before handling your Palmcorder, make sure your hands and face are free from any chemical products, such as suntan lotion, as it may damage the finish.

This class B digital apparatus complies with CANADIAN ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du CANADA.

This Product has fluorescent lamps that contain a small amount of mercury. It also contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <http://www.eiae.org.>

ATTENTION:

A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

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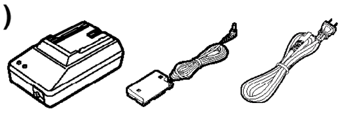

PV-DAC11C

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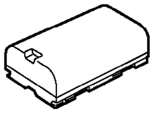

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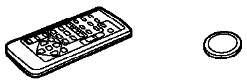

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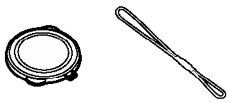

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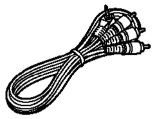

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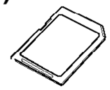

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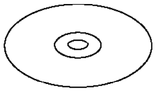

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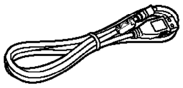

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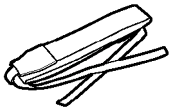
9)



VFC3506

Before Using

Standard Accessories

Illustrated on the left are accessories packaged with the Palmcorder.

1) **AC Adaptor, DC Cable and AC Cable (➜ 12)**
   - ●Supplies power to the Palmcorder.

CAUTION:

This unit will operate on 110/120/220/240V AC. An AC plug adaptor may be required for voltages other than 120V AC. Please contact either a local or foreign electrical parts distributor for assistance in selecting an alternate AC plug. We recommend using the accessory power plug adaptor (VJSS0070) in an area which has special AC outlets.

2) **Battery Pack (➜ 12)**
   - ●Supplies power to the Palmcorder.
3) **Remote Controller and Button-Type Battery (➜ 10, 11)**
4) **Lens Cap and Lens Cap Cord (➜ 13)**
5) **A/V Cable (➜ 34, 44)**
6) **SD Memory Card (➜ 55)**
7) **CD-ROM :**
   USB Driver for Panasonic DVC (➜ 48)
   G726 Decoder (➜ 46, 49)
   ArcSoft Software (➜ 46, 47)

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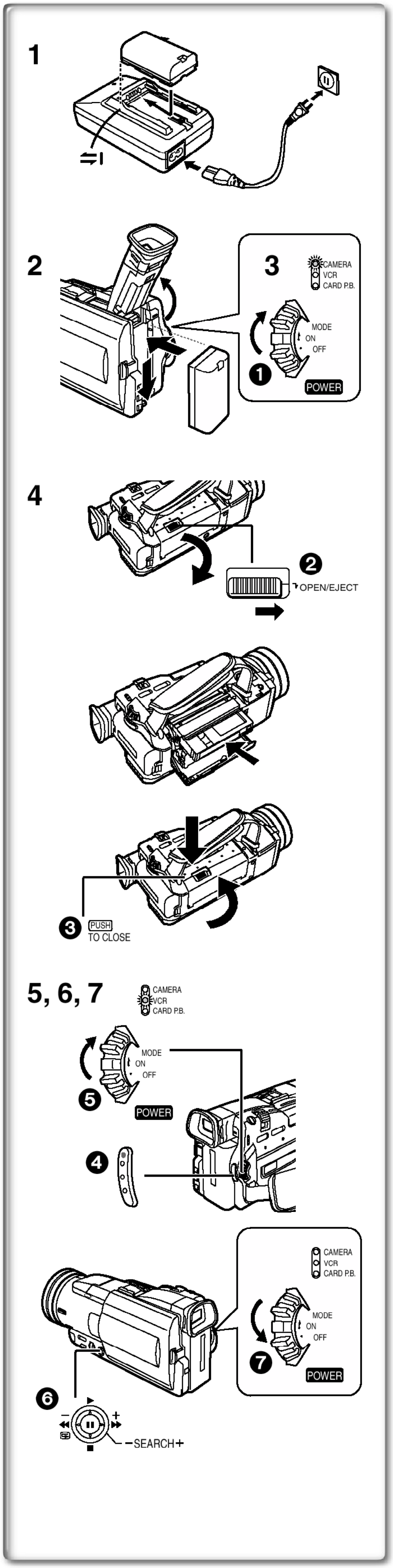
- ●SD is a trademark.

8) **USB Cable (➜ 48)**
9) **Shoulder Strap (➜ 13)**


1
2
3
CAMERA
VCR
CARD P.B.
MODE
ON
OFF
❶
POWER
4
❷
OPEN/EJECT
❸
PUSH
TO CLOSE
5, 6, 7
CAMERA
VCR
CARD P.B.
MODE
ON
OFF
❺
POWER
❹
CAMERA
VCR
CARD P.B.
MODE
ON
OFF
❼
POWER
❻
–SEARCH+

Quick Guide

1 **Charge the Battery.** (➜ 12)
- ●Connect the AC Cable to the AC Adaptor and AC wall outlet.
- ●Attach the Battery to the AC Adaptor. (This will start the charging process.)
- ●When the Charge Lamp [CHARGE] goes off, the Battery is fully charged.
- ●Since the Battery will not be charged when the DC Cable is connected to the AC Adaptor, disconnect it.

2 **Attach the Charged Battery to the Palmcorder.** (➜ 12)
- ●Attach the battery after tilting the Viewfinder upward.

3 **Turn the Palmcorder on.** (➜ 14)
- ●Slide the ❶ Switch to [ON]. (The [CAMERA] Lamp lights up.)

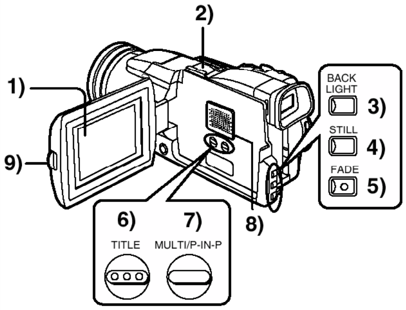
4 **Insert the Cassette.** (➜ 13)
- ●Slide the ❷ lever to the right and pull down to open the Cassette compartment cover.
- ●Insert the Cassette.
- ●Press the [PUSH/TO CLOSE] ❸ to load the Cassette.
- ●Close the lower compartment Cover.

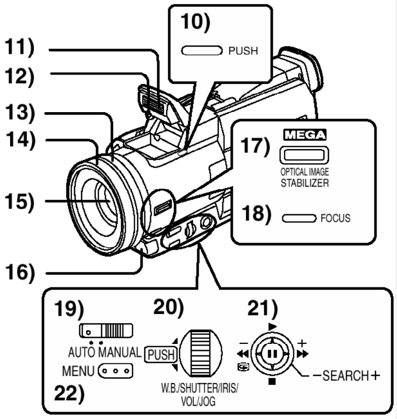
5 **Start recording.** (➜ 20)
- ●Press the ❹ Button. (Recording starts.)
- ●Press the ❹ Button again to pause the recording.

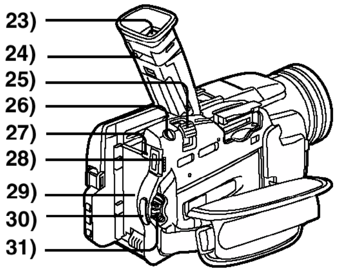
To watch the Playback Picture

6 **Switch to the VCR Mode, rewind the tape, and play the tape back.** (➜ 29)
- ●Slide the ❺ Switch to VCR mode. (The [VCR] Lamp lights up.)
- ●Push the ❻ Lever towards [◀◀]. (Rewind the tape.)
- ●Push the ❻ Lever towards [▶]. (Playback starts.)
- ●Push the ❻ Lever towards [■]. (Playback stops.)

7 **Turn the Palmcorder off.** (➜ 14)
- ●Set the ❼ Switch to [OFF].







Controls and Components

1) LCD Monitor (➜ 14, 66)

- **Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.**

---

2) Accessory Shoe
- Accessories, such as a stereo microphone (not supplied), are attached here.

3) Backlight Button [BACKLIGHT] (➜ 23)
4) Still Button [STILL] (➜ 21)
5) Fade Button [FADE] (➜ 22)
6) Title Button [TITLE] (➜ 41)
7) Multi-Picture Button [MULTI] (➜ 28, 33, 39, 41)
Picture-in-Picture Button [P-IN-P] (➜ 28)
8) Speaker
9) LCD Monitor Open Button [PUSH OPEN] (➜ 14)
10) Flash Open Button [PUSH] (➜ 26)
11) Built-in Video Flash (➜ 26)
12) Flash sensor
13) Focus Ring (➜ 24)
14) Lens Hood (➜ 66)
15) Lens (LEICA DICOMAR)
- LEICA is a registered trademark of Leica microsystems IR GmbH and DICOMAR is a registered trademark of Leica Camera AG.

16) Remote Control Sensor (➜ 11)
17) Optical Image Stabilizer Button [OPTICAL IMAGE STABILIZER] ([EIS]) (➜ 22)
18) Focus Button [FOCUS] (➜ 24)
19) Mode Selector Switch [AUTO/MANUAL] (➜ 20, 23, 24, 25)
20) Multi-Function Dial [PUSH] (➜ 15, 19, 24, 25, 29, 30)
21) Operation Lever
Operates by pushing the lever to each direction.
Ⓐ: Reverse Search [−] (➜ 20)
Rewind/Review [◀◀] (➜ 29)
Forward Search [+] (➜ 20)
Fast Forward/Cue [▶▶] (➜ 29)
Recording Check [↩] (➜ 20)
Ⓑ: Playback [▶] (➜ 29, 38, 40)
Pushing it twice activates the Variable Speed Search mode.
Ⓒ: Stop [■] (➜ 29, 38, 40)
Operates by pressing.
Ⓓ: Pause [❚❚] (➜ 30, 40)
22) Menu Button [MENU] (➜ 15)
23) Viewfinder (➜ 14, 66)

- **Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Viewfinder screen. However, this is not a malfunction and does not affect the recorded picture.**

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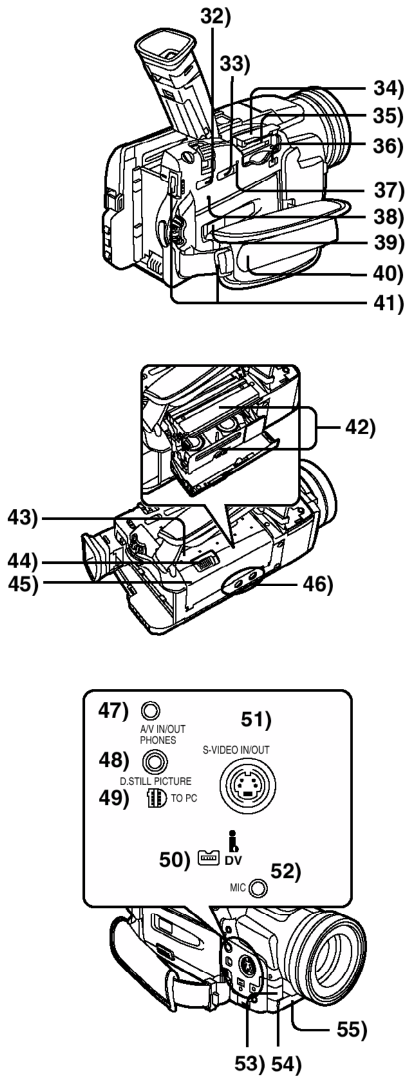
24) Eyepiece Corrector Knob (➜ 14)
25) Zoom Lever [W/T] (➜ 21, 22)
26) PhotoShot Button [PHOTO SHOT] (➜ 21, 35, 36)
27) Battery Eject Button [BATT PUSH] (➜ 12)
28) Operation Mode Lamps [CAMERA/VCR/CARD P.B.] (➜ 14, 20, 29, 38)
29) Battery Holder (➜ 12)
30) Recording Start/Stop Button (➜ 20)
31) Power Off/On Mode Selector Switch [OFF/ON/MODE] (➜ 14, 29, 38)



32) Tape/Card Selector [TAPE/CARD] (➜ 35)
33) Card Mode Selector [STILL/MPEG4/VOICE] (➜ 35, 36, 37, 38)
34) Card Slot Cover (➜ 35)
35) Card Slot (➜ 35)
36) Card Slot Cover Open Lever [OPEN] (➜ 35)
37) Card Access Lamp [ACCESS] (➜ 35)
38) Reset Button [RESET] (➜ 71)
39) Cassette Compartment Window
40) Grip Belt (➜ 13)
41) Shoulder Strap Holder (➜ 13)
42) Cassette Holder (➜ 13)
43) Upper Cassette Compartment Cover (➜ 13)
44) Cassette Eject Lever [OPEN/EJECT] (➜ 13)
45) Lower Cassette Compartment Cover (➜ 13)
46) Tripod Receptacle

- Use for mounting the Palmcorder on an optional tripod.

47) Audio-Video Input/Output Jack [A/V IN/OUT] (➜ 34, 44)
Headphone Jack [PHONES] (➜ 61)

- When a cable is connected to this jack, the built-in speaker of the Palmcorder is disabled.

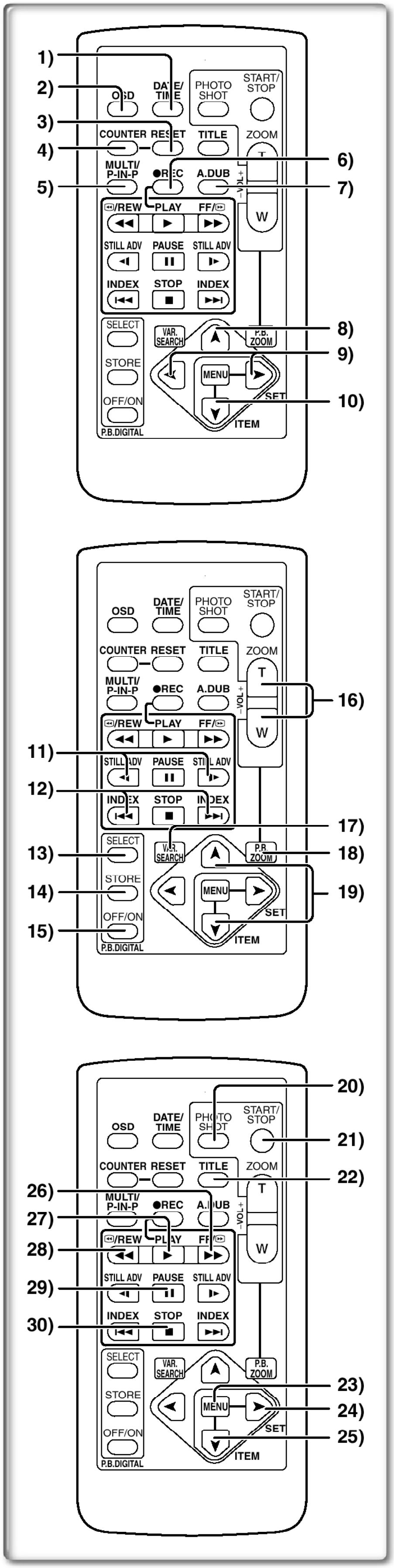
48) Digital Still Picture Terminal [D.STILL PICTURE]
49) USB Jack [TO PC] (➜ 48)
50) DV Input/Output Terminal (i.LINK) [i] (➜ 45)

- Connect this to the digital video equipment.
- "i.LINK" is the name of connectors in accordance with IEEE1394-1995. "i" is a logo marked on products conforming with the "i.LINK" specifications.

51) S-Video Input/Output Jack [S-VIDEO IN/OUT] (➜ 34, 44)
52) Microphone Jack [MIC] (➜ 34, 62)

- Connect with an external microphone or audio equipment. (When this jack is in use, the built-in microphone does not function.)

53) White Balance Sensor (➜ 67)
54) Tally Lamp (➜ 20)
55) Microphone (built-in, stereo)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OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER
RESET
TITLE
ZOOM
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W
VOL
MULTI/P-IN-P
●REC
A.DUB
REW
PLAY
FF
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL

Remote Controller

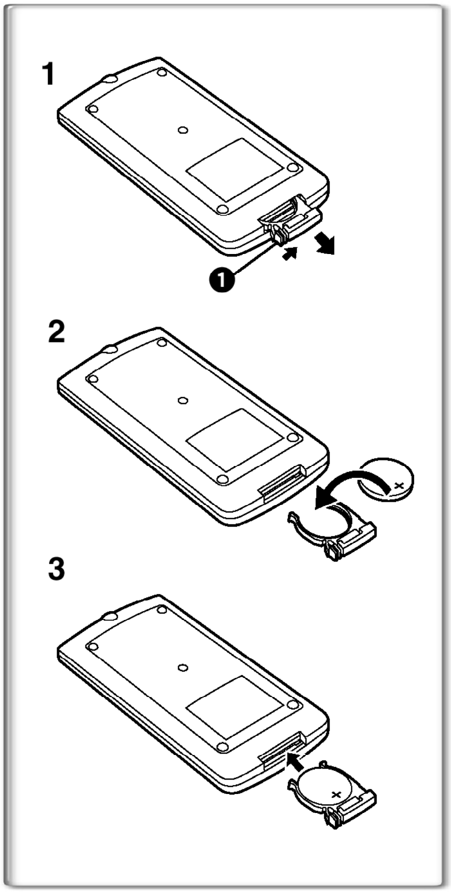
Using the wireless remote controller that is supplied with the Palmcorder, most of the Palmcorder functions can be operated from a distance.

Remote Controller Buttons

1) Date and Time Button [DATE/TIME] (➜ 58)
2) Indication Output Button [OSD] (➜ 34)
3) Counter Reset Button [RESET] (➜ 67)
4) Indication Shift Button [COUNTER] (➜ 58)
5) Multi-Picture/Picture-in-Picture Button [MULTI/P-IN-P] (➜ 28, 33, 39, 41)
6) Recording Button [REC] (➜ 44, 45)
7) Audio Dubbing Button [A.DUB] (➜ 34)
8) Upward Direction Button [⋀] (for Playback Zoom Function) (➜ 32)
9) Left/Right Direction Button [◄, ►] (for Playback Zoom Function) (➜ 32)
10) Downward Direction Button [⋁] (for Playback Zoom Function) (➜ 32)
11) Slow Motion/Still Advance Button [◂I, I▸] (◂I : reverse direction, I▸: normal direction) (➜ 30)
12) Index Search Button [⏮, ⏭] (⏮ : reverse direction, ⏭ normal direction) (➜ 31)
13) Selection Button [SELECT] (➜ 32)
14) Store Button [STORE] (➜ 32)
15) Off/On Button [OFF/ON] (➜ 32)
16) Zoom/Volume Button [ZOOM/VOL] (➜ 21, 22, 29, 32)
17) Variable Speed Search Button [VAR. SEARCH] (➜ 29)
18) Playback Zoom Button [P.B. ZOOM] (➜ 32)
19) Speed Selection Button [⋀, ⋁] (for variable speed search function) (➜ 29)

The following buttons function in the same manner as the corresponding buttons on the Palmcorder.

20) PhotoShot Button [PHOTO SHOT] (➜ 21, 35)
21) Recording Start/Stop Button [START/STOP] (➜ 20)
22) Title Button [TITLE] (➜ 41)
23) Menu Button [MENU] (➜ 15)
24) Item Set Button [SET] (➜ 15)
25) Item Select Button [ITEM] (➜ 15)
26) Fast-forward/Cue Button [▶▶] (➜ 29)
27) Play Button [▶] (➜ 29, 30, 38)
28) Rewind/Review Button [◀◀] (➜ 29)
29) Pause Button [❚❚] (➜ 30, 38)
30) Stop Button [■] (➜ 29, 30, 38)



Inserting a Button-type Battery

Before using the remote controller, insert the supplied button-type battery.

1. **While pressing the Stopper ❶, pull out the Battery Holder.**
2. **Insert the button-type battery with the imprint (+) facing upward.**
3. **Insert the Battery Holder into the Remote Controller.**

- When the button-type battery becomes weak, replace it with a new CR2025 battery. (A battery is normally expected to last about one year. However, it depends on operation frequency.)
- Be sure to match the poles properly when inserting the battery.

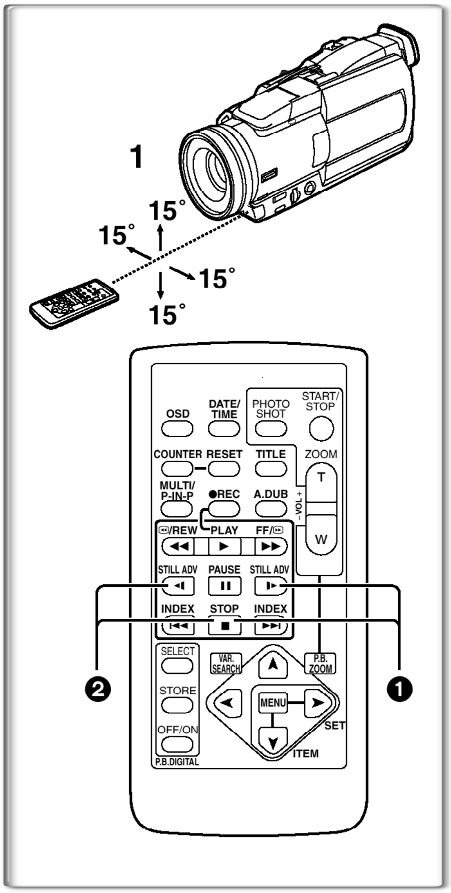
……

Warning

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.
Risk of fire, explosion and burns. Do not recharge, disassemble, heat above 212° F (100° C) or incinerate. Keep the Button-Type battery out of the reach of children. Never put Button-Type battery in mouth. If swallowed, call your doctor.

……

Replace battery with Panasonic PART NO. VSBW0004 (CR2025) only.
Use of another battery may present a risk of fire or explosion.
Caution: Battery may explode if mistreated.
Dispose of used battery promptly. Keep away from children.
Do not recharge, disassemble or dispose of in fire.



Using the Remote Controller

1. **Direct the Remote Controller at the Remote Control Sensor on the Palmcorder and press the desired button.**
   - Distance from the Palmcorder: Within approximately 15 feet (5 meters)
   - Angle: Approximately 15 degrees in the vertical and horizontal directions from the central axis

- The above operating ranges are for indoor use. Outdoors, or under strong light, the equipment may not operate properly even within the above ranges.
- Within 3 feet (1 meter) range, you can also use the Remote Controller on the side (the LCD Monitor side) of the Palmcorder.

Selecting Remote Controller Modes

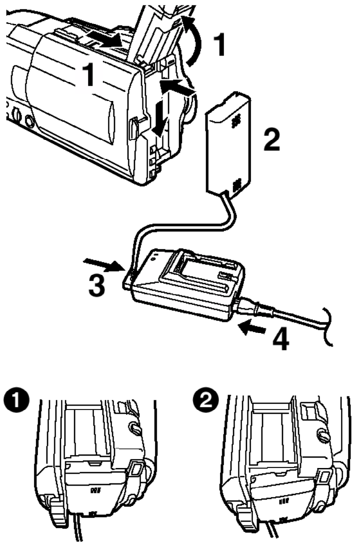
When two Palmcorders are used simultaneously, they can be operated individually by selecting different Remote Controller Modes.

- If the Remote Controller Mode on the Palmcorder and Remote Controller do not match, [REMOTE] is displayed.

Setting on the Palmcorder:
Set [REMOTE] on the [OTHER FUNCTIONS] Sub-Menu to the desired Remote Controller Mode.

Setting on the Remote Controller:
[VCR1]: Press the [▮▶] Button and [■] Button simultaneously. ❶
[VCR2]: Press the [◀▮] Button and [■] Button simultaneously. ❷

- When the battery in the Remote Controller is replaced, the Mode is automatically reset to [VCR1] Mode.

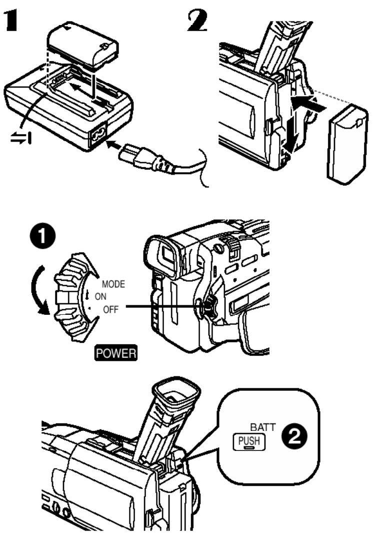


Power Supply

Using the AC Adaptor

1 **Slide the Viewfinder backward and then tilt it upward.**
2 **Insert the battery-shaped connector of the DC Cable into the Battery Holder on the Palmcorder.**
3 **Connect the DC connector plug to the [DC OUT] Jack on the AC Adaptor.**
4 **Connect the AC Adaptor and AC Cable.**

- Please confirm whether the DC Cable is connected completely.
  ❶ Correct ❷ Wrong
- Before disconnecting the power supply, set the [OFF/ON/MODE] Switch on the Palmcorder to [OFF].
- Battery cannot be charged if DC Cable is connected to AC Adaptor.



Using the Battery

Before use, fully charge the battery.

1 **Attach the Battery to AC Adaptor and charge it.**
- Since the Battery will not be charged when the DC Cable is connected to the AC Adaptor, disconnect it.
- The [CHARGE] Lamp lights up, and charging starts.
- When the [CHARGE] Lamp goes off, charging is completed.

2 **Attach the charged Battery to the Palmcorder.**

Disconnecting the Power Source

Set the [OFF/ON/MODE] Switch ❶ to [OFF] and, while pressing the [BATT PUSH] Button ❷, slide the Battery or DC Cable upward to disconnect it.

- For other notes, see page 59.

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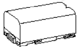
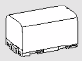
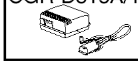
Charging Time and Available Recording Time

Ⓐ Charging Time
Ⓑ Maximum Continuous Recording Time

- "1 h 20 min." indicates 1 hour and 20 minutes.
- Battery CGR-D08 is supplied.
- The hours shown in the table are approximate hours. The numeric characters in parentheses indicate the recording time when the LCD monitor is used. In actual use, the available recording time may be shorter in some cases.
- The hours shown in the table are for continuous recording at a temperature of 68 °F (20 °C) and humidity of 60 %. If the Battery is charged at a higher or lower temperature, the charging time may be longer.

CGR-D08A/1B PV-DBP8A 	Ⓐ	**1 h.**
	Ⓑ	**1 h 30 min.** **(1 h 15 min.)**
CGR-D16A/1B PV-DBP9A 	Ⓐ	**2 h.**
	Ⓑ	**3 h.** **(2 h 25 min.)**
CGR-D28A/1B 	Ⓐ	**3 h 15 min.**
	Ⓑ	**5 h 10 min.** **(4 h 10 min.)**
CGR-D53A/1K CGR-D815A/1B 	Ⓐ	**5 h 20 min.**
	Ⓑ	**9 h 40 min.** **(7 h 50 min.)**
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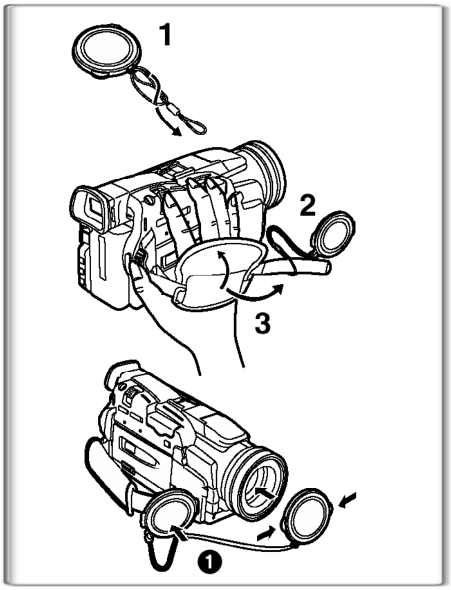
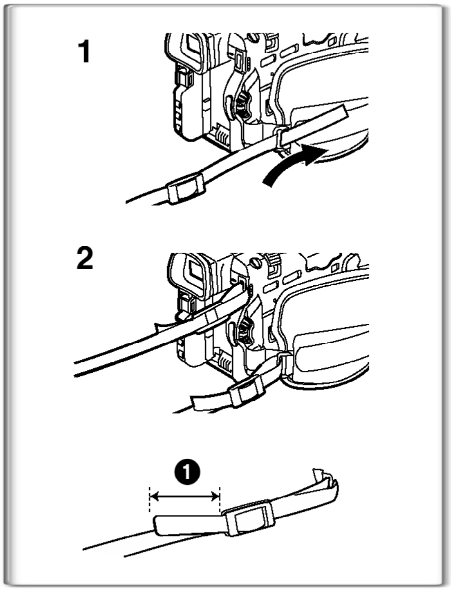


Lens Cap and Grip Belt

To protect the Lens surface, attach the Lens Cap. Adjust the length of the Grip Belt to the size of your hand.

1 **Attach the longer loop of the Lens Cap Cord to the Lens Cap.**
2 **Attach the shorter loop to the grip belt.**
3 **Put your hand through the Grip Belt and adjust the length.**

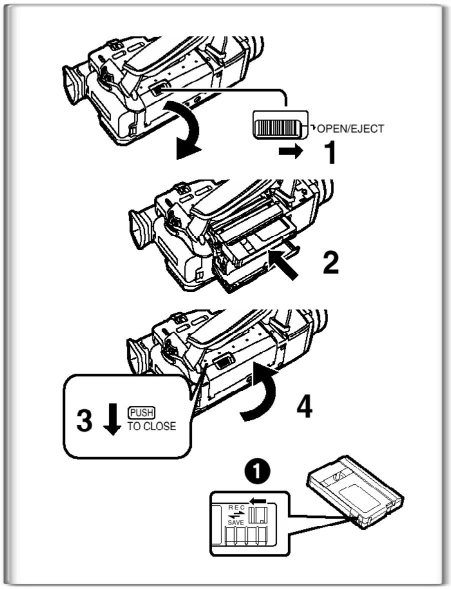
- The removed Lens Cap can be hooked onto the grip belt ❶. (When you are not recording, be sure to keep the Lens Cap attached to the Lens for protection.)



Attaching the Shoulder Strap

We recommend that you attach the Shoulder Strap before going outdoors to record so as to avoid dropping the Palmcorder.

1 **Pass the tip of the Shoulder Strap through the Shoulder Strap Holder on the Palmcorder and pull the Shoulder Strap.**
2 **Fold the tip of the Shoulder Strap, pass it through the Shoulder Strap Length Adjuster, and pull it.**
   - Pull it out more than 1 inch (2 cm) ❶ from the Shoulder Strap Length Adjuster so that it cannot slip off.



Inserting a Cassette

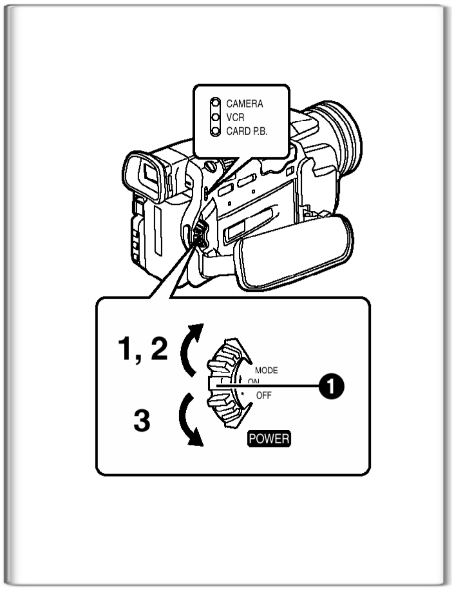
When power is supplied to the Palmcorder, the cassette can be taken out without turning the Palmcorder on.

1 **Slide the [OPEN/EJECT] Lever to the right and pull down to open the Cassette Compartment.**
2 **Insert a Cassette.**
3 **Close the Cassette Compartment and lock the Cassette Compartment by pressing the [PUSH TO CLOSE] mark.**
4 **Close the Lower Cassette Compartment Cover.**

- For other notes, see page 59.

■Accidental Erasure Prevention

Opening the accidental erasure prevention slider ❶ on the cassette (by sliding it in the [SAVE] arrow direction) prevents recording. To enable recording, close the accidental erasure protection slider (by sliding it in the [REC] arrow direction.)



Turning on/off the Palmcorder and selecting Modes

Turn on the power first and then select Modes.

How to Turn on the Power

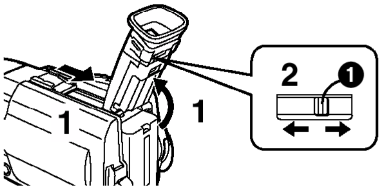
1 **Set the [OFF/ON/MODE] Switch to [ON] while pressing the center Button ❶.**
- The [CAMERA] Lamp lights up.

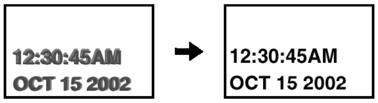
How to Switch Modes

2 **Slide the [OFF/ON/MODE] Switch.**
- With each slide of the Switch, the Mode switches in the order of Camera Mode, VCR Mode, and Card Playback Mode.
- The appropriate Mode Lamp lights up.

How to Turn off the Power

3 **Set the [OFF/ON/MODE] Switch to [OFF] while pressing the center Button.**



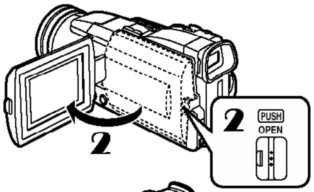


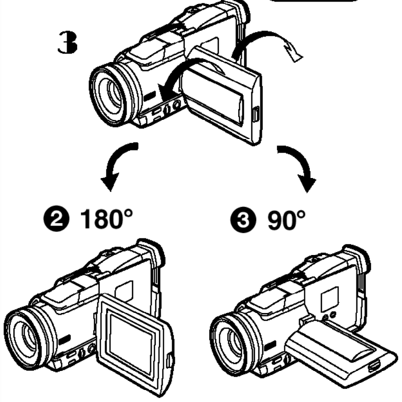
Using the Viewfinder

Before using the Viewfinder, adjust the field of view so that the displays inside the viewfinder become clear and easy to read.

1 **Slide the Viewfinder backward and then tilt it upward.**
- The Viewfinder angle is adjusted upward.

2 **Adjust by sliding the Eyepiece Corrector Knob ❶.**





Using the LCD Monitor

With the LCD Monitor open, you can also record the picture while watching it.

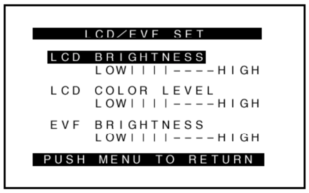
1 **Set the [OFF/ON/MODE] Switch to [ON].**

2 **Press the [PUSH OPEN] Button and, at the same time, bring out the LCD Monitor about 90° in the direction of the arrow.**
- The Viewfinder goes off.

3 **Adjust the LCD Monitor angle according to the desired recording angle.**
- The LCD Monitor can rotate a maximum of 180° ❷ from the vertical position to the upward direction and a maximum of 90° ❸ to the downward direction. Forcefully rotating the LCD monitor beyond these ranges will damage the Palmcorder.

Closing the LCD monitor

Push the LCD Monitor until the [PUSH OPEN] Button is securely locked.



LCD/EVF SET
LCD BRIGHTNESS
LOW||||----HIGH
LCD COLOR LEVEL
LOW||||----HIGH
EVF BRIGHTNESS
LOW||||----HIGH
PUSH MENU TO RETURN

Adjusting Brightness and Color Level

When [LCD/EVF SET] on the [DISPLAY SETUP] Sub-menu is set to [YES], the following items are displayed:

LCD Brightness [LCD BRIGHTNESS]
Adjusts the brightness of the image on the LCD screen.

LCD Color Level [LCD COLOR LEVEL]
Adjusts the color saturation of the image on the LCD screen.

Brightness of the Viewfinder [EVF BRIGHTNESS]
Adjust the brightness of the image in the Viewfinder.

1 **Press the [PUSH] Dial and select the item you want to adjust.**

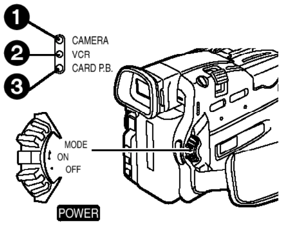
2 **Rotate the [PUSH] Dial and increase or decrease the number of the vertical bars on the Bar Indication.**
- The Bar Indication has 8 steps. A larger number of vertical bars indicates stronger brightness or color saturation.

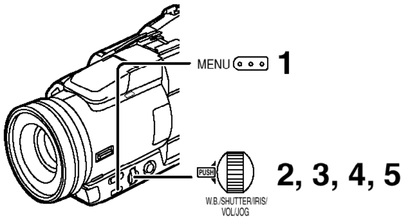
Increasing the Brightness of the Entire LCD Monitor

Set the [LCD MODE] on the [DISPLAY SETUP] Sub-Menu to [BRIGHT].

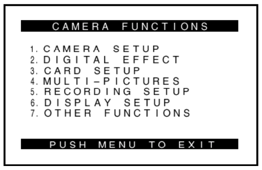
- These adjustments do not affect the recorded images.

- For other notes, see page 66.


❶
❷
❸
CAMERA
VCR
CARD P.B.
MODE
ON
OFF
POWER


MENU
1
PUSH
2, 3, 4, 5
W.B./SHUTTER/IRIS/
VOL/JOG

❶

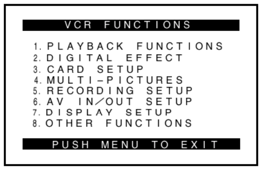


CAMERA FUNCTIONS

1. CAMERA SETUP
2. DIGITAL EFFECT
3. CARD SETUP
4. MULTI-PICTURES
5. RECORDING SETUP
6. DISPLAY SETUP
7. OTHER FUNCTIONS

PUSH MENU TO EXIT

❷

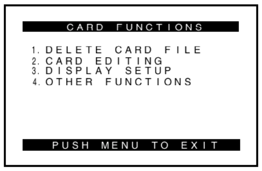


VCR FUNCTIONS

1. PLAYBACK FUNCTIONS
2. DIGITAL EFFECT
3. CARD SETUP
4. MULTI-PICTURES
5. RECORDING SETUP
6. AV IN/OUT SETUP
7. DISPLAY SETUP
8. OTHER FUNCTIONS

PUSH MENU TO EXIT

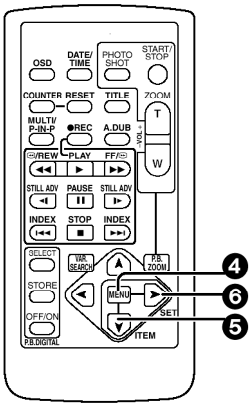
❸



CARD FUNCTIONS

1. DELETE CARD FILE
2. CARD EDITING
3. DISPLAY SETUP
4. OTHER FUNCTIONS

PUSH MENU TO EXIT


OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER
RESET
TITLE
ZOOM
MULTI/P-IN-P
●REC
A.DUB
T
W
VOL
REW
PLAY
FF
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
OFF/ON
SET
P.B.DIGITAL
ITEM
❹
❻
❺

Using the Menu Screen

To facilitate the selection of a desired function or setting, this Palmcorder displays various function settings on menus.

1 **Press the [MENU] Button.**
- ●When the [CAMERA] Lamp is on, the Camera Function Menu is displayed. ❶
- ●When the [VCR] Lamp is on, the VCR Function Menu is displayed. ❷
- ●When the [CARD P.B.] Lamp is on, the Card Function Menu is displayed. ❸

2 **Rotate the [PUSH] Dial to select a desired Sub-Menu.**
- ●Rotate the [PUSH] dial to display the items highlighted.

3 **Press the [PUSH] Dial to display the selected Sub-Menu.**

4 **Rotate the [PUSH] Dial to select the item to be set.**

5 **Press the [PUSH] Dial to set the selected item to a desired Mode.**
- ●With each press of the [PUSH] Dial, the cursor [▶] brings up a subsequent Mode. Menu items that cannot be used in combination with the selected menu items are displayed in dark blue.

●While a Menu is displayed, you cannot begin to record or play back. Menus can be displayed during playback but not during recording.

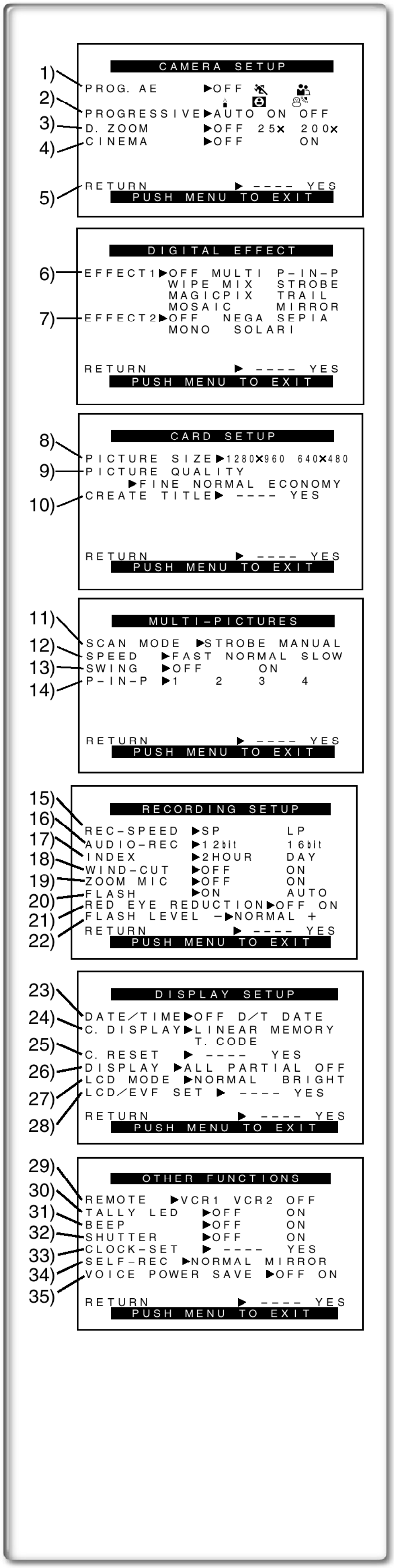
●The above operations can be carried out using the Remote Controller. **(➜ 10)**
- **●To display the Menu, press the [MENU] Button ❹ on the Remote Controller.**
- **●To select items on the Menu, press the [ITEM] Button ❺ on the Remote Controller.**
- **●To set the mode for the selected items, press the [SET] Button ❻ on the Remote Controller.**

To Exit the Menu Screen

Press the [MENU] Button again.

About the Menu Mode Setting

The setting selected on the Menu will be retained even when the Palmcorder is turned off. However, if the Battery or AC Adaptor is disconnected before Turning the Palmcorder off, the selected setting may not be retained.



1)
2)
3)
4)
5)
CAMERA SETUP
PROG. AE ▶OFF
PROGRESSIVE▶AUTO ON OFF
D. ZOOM ▶OFF 25× 200×
CINEMA ▶OFF ON
RETURN ▶ ---- YES
PUSH MENU TO EXIT
6)
7)
DIGITAL EFFECT
EFFECT1▶OFF MULTI P-IN-P
WIPE MIX STROBE
MAGICPIX TRAIL
MOSAIC MIRROR
EFFECT2▶OFF NEGA SEPIA
MONO SOLARI
RETURN ▶ ---- YES
PUSH MENU TO EXIT
8)
9)
10)
CARD SETUP
PICTURE SIZE▶1280×960 640×480
PICTURE QUALITY
▶FINE NORMAL ECONOMY
CREATE TITLE▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT
11)
12)
13)
14)
MULTI-PICTURES
SCAN MODE ▶STROBE MANUAL
SPEED ▶FAST NORMAL SLOW
SWING ▶OFF ON
P-IN-P ▶1 2 3 4
RETURN ▶ ---- YES
PUSH MENU TO EXIT
15)
16)
17)
18)
19)
20)
21)
22)
RECORDING SETUP
REC-SPEED ▶SP LP
AUDIO-REC ▶12bit 16bit
INDEX ▶2HOUR DAY
WIND-CUT ▶OFF ON
ZOOM MIC ▶OFF ON
FLASH ▶ON AUTO
RED EYE REDUCTION▶OFF ON
FLASH LEVEL -▶NORMAL +
RETURN ▶ ---- YES
PUSH MENU TO EXIT
23)
24)
25)
26)
27)
28)
DISPLAY SETUP
DATE/TIME▶OFF D/T DATE
C. DISPLAY▶LINEAR MEMORY
T. CODE
C. RESET ▶ ---- YES
DISPLAY ▶ALL PARTIAL OFF
LCD MODE ▶NORMAL BRIGHT
LCD/EVF SET ▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT
29)
30)
31)
32)
33)
34)
35)
OTHER FUNCTIONS
REMOTE ▶VCR1 VCR2 OFF
TALLY LED ▶OFF ON
BEEP ▶OFF ON
SHUTTER ▶OFF ON
CLOCK-SET ▶ ---- YES
SELF-REC ▶NORMAL MIRROR
VOICE POWER SAVE ▶OFF ON
RETURN ▶ ---- YES
PUSH MENU TO EXIT

List of Menus

The illustrations of the Menus are for explanation purposes only, and they are different from the actual Menus.

Camera Mode Main-Menu [CAMERA FUNCTIONS]

[CAMERA SETUP] Sub-Menu

1) Auto Exposure Mode [PROG.AE] **(➜ 23)**
2) Progressive PhotoShot^{TM} Mode [PROGRESSIVE] **(➜ 21)**
3) Digital Zoom [D.ZOOM] **(➜ 22)**
4) Cinema-like Format Recording [CINEMA] **(➜ 23)**
5) Returning to the Main-Menu [RETURN]

[DIGITAL EFFECT] Sub-Menu

6) Digital Effects 1 [EFFECT1] **(➜ 27)**
7) Digital Effects 2 [EFFECT2] **(➜ 27)**

[CARD SETUP] Sub-Menu

8) Picture Size [PICTURE SIZE] **(➜ 35)**
9) Picture Quality [PICTURE QUALITY] **(➜ 36)**
10) Title Creation [CREATE TITLE] **(➜ 41)**

[MULTI-PICTURES] Sub-Menu

11) Multi-Picture Mode [SCAN MODE] **(➜ 28)**
12) Strobe Multi-Picture Speed [SPEED] **(➜ 28)**
13) Swing Mode [SWING] **(➜ 28)**
14) Position of Small Picture inside Normal Picture [P-IN-P] **(➜ 28)**

[RECORDING SETUP] Sub-Menu

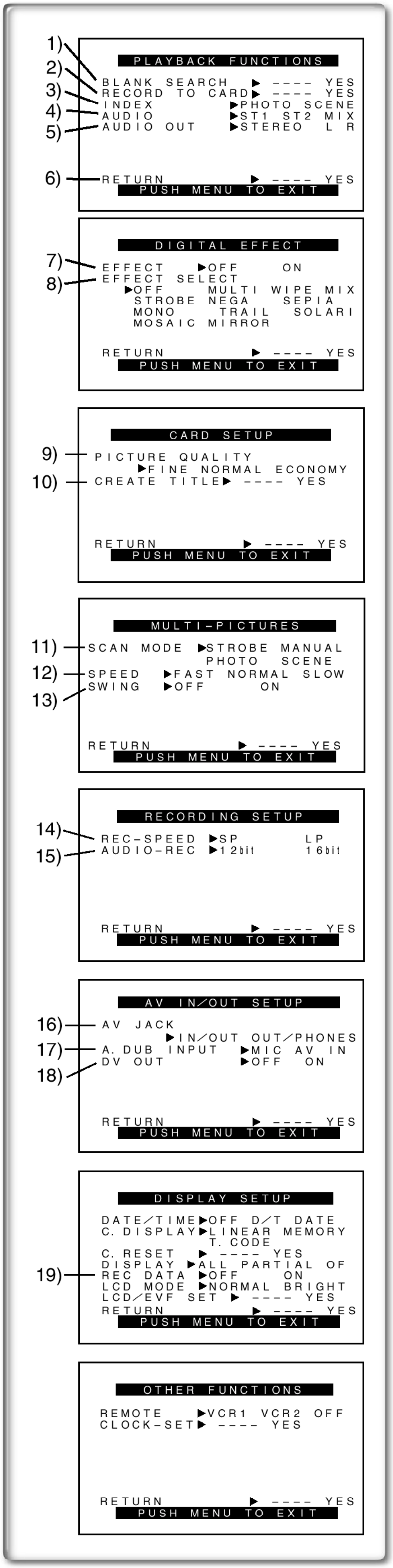
15) Recording Speed Mode [REC-SPEED] **(➜ 19)**
16) Audio Recording Mode [AUDIO-REC] **(➜ 19, 34)**
17) Index Mode [INDEX] **(➜ 31)**
18) Wind Noise Reduction [WIND-CUT]
    - ●If this function is set to [ON], the sound of wind hitting the microphone can be reduced for recording.
19) Zoom Microphone [ZOOM MIC] **(➜ 21)**
20) Flash [FLASH] **(➜ 26)**
21) Red Eye Reduction [RED EYE REDUCTION] **(➜ 26)**
22) Flash Level [FLASH LEVEL] **(➜ 26)**

[DISPLAY SETUP] Sub-Menu

23) Date and Time Indication [DATE/TIME] **(➜ 58)**
24) Counter Display Mode [C.DISPLAY] **(➜ 58)**
25) Counter Reset [C.RESET] **(➜ 67)**
    - ●Set the counter value to zero. However, it cannot reset the Time Code.
26) Display Mode [DISPLAY] **(➜ 58)**
27) LCD Brightness [LCD MODE] **(➜ 14)**
28) LCD and Viewfinder Adjustment [LCD/EVF SET] **(➜ 14)**

[OTHER FUNCTIONS] Sub-Menu

29) Remote Controller Mode [REMOTE] **(➜ 11)**
30) Recording Lamp [TALLY LED] **(➜ 20)**
31) Beep Sound [BEEP] **(➜ 59)**
32) Shutter Effect [SHUTTER] **(➜ 21)**
33) Date and Time Setting [CLOCK-SET] **(➜ 19)**
34) Self-Recording [SELF-REC] **(➜ 20)**
35) Voice Power Save [VOICE POWER SAVE] **(➜ 63)**


1)
2)
3)
4)
5)
6)
PLAYBACK FUNCTIONS
BLANK SEARCH ▶ ---- YES
RECORD TO CARD ▶ ---- YES
INDEX ▶PHOTO SCENE
AUDIO ▶ST1 ST2 MIX
AUDIO OUT ▶STEREO L R
RETURN ▶ ---- YES
PUSH MENU TO EXIT
7)
8)
DIGITAL EFFECT
EFFECT ▶OFF ON
EFFECT SELECT
▶OFF MULTI WIPE MIX
STROBE NEGA SEPIA
MONO TRAIL SOLARI
MOSAIC MIRROR
RETURN ▶ ---- YES
PUSH MENU TO EXIT
9)
10)
CARD SETUP
PICTURE QUALITY
▶FINE NORMAL ECONOMY
CREATE TITLE▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT
11)
12)
13)
MULTI-PICTURES
SCAN MODE ▶STROBE MANUAL
PHOTO SCENE
SPEED ▶FAST NORMAL SLOW
SWING ▶OFF ON
RETURN ▶ ---- YES
PUSH MENU TO EXIT
14)
15)
RECORDING SETUP
REC-SPEED ▶SP LP
AUDIO-REC ▶12bit 16bit
RETURN ▶ ---- YES
PUSH MENU TO EXIT
16)
17)
18)
AV IN/OUT SETUP
AV JACK
▶IN/OUT OUT/PHONES
A. DUB INPUT ▶MIC AV IN
DV OUT ▶OFF ON
RETURN ▶ ---- YES
PUSH MENU TO EXIT
19)
DISPLAY SETUP
DATE/TIME▶OFF D/T DATE
C. DISPLAY▶LINEAR MEMORY
T. CODE
C. RESET ▶ ---- YES
DISPLAY ▶ALL PARTIAL OF
REC DATA ▶OFF ON
LCD MODE ▶NORMAL BRIGHT
LCD/EVF SET ▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT
OTHER FUNCTIONS
REMOTE ▶VCR1 VCR2 OFF
CLOCK-SET▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT

VCR Mode Main-Menu [VCR FUNCTIONS]

[PLAYBACK FUNCTIONS] Sub-Menu

1) Blank Search [BLANK SEARCH] **(➜ 30)**
2) Recording to Card [RECORD TO CARD] **(➜ 36)**
3) Index Search Mode [INDEX] **(➜ 31)**
4) Audio Selector [AUDIO] **(➜ 34)**
5) Audio Output Mode [AUDIO OUT] **(➜ 61)**
6) Returning to the Main-Menu [RETURN]

[DIGITAL EFFECT] Sub-Menu

7) Digital Effect On/Off [EFFECT] **(➜ 32, 33)**
8) Digital Effect Selection [EFFECT SELECT] **(➜ 32, 33)**

[CARD SETUP] Sub-Menu

9) Picture Quality [PICTURE QUALITY] **(➜ 36)**
10) Title Creation [CREATE TITLE] **(➜ 41)**

[MULTI-PICTURES] Sub-Menu

11) Multi-Picture Mode [SCAN MODE] **(➜ 33)**
12) Strobe Multi-Picture Speed [SPEED] **(➜ 33)**
13) Swing Mode [SWING] **(➜ 33)**

[RECORDING SETUP] Sub-Menu

14) Recording Speed Mode [REC-SPEED] **(➜ 19, 44, 45)**
15) Audio Recording Mode [AUDIO-REC] **(➜ 19, 34)**

[AV IN/OUT SETUP] Sub-Menu

16) AV Jack [AV JACK] **(➜ 34, 44, 61)**
17) Audio Dubbing Input [A.DUB INPUT] **(➜ 34)**
18) AD Conversion Output [DV OUT] **(➜ 45)**

[DISPLAY SETUP] Sub-Menu

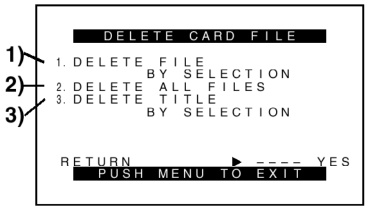
19) Camera Data [REC DATA]
- ●If you set [REC DATA] to [ON], the settings (shutter speed **(➜ 24)**, iris **(➜ 24)** and white balance settings **(➜ 25)**, etc.) used during the recordings are displayed during playback. [---] appears on the display when there is no data.
- ●The settings information may not displayed properly if the camera data of this Palmcorder are played back on other equipment.

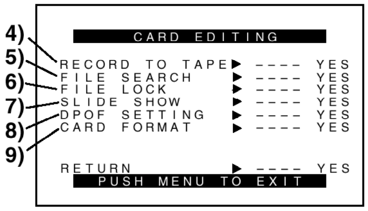
The camera data will not be recorded in the following cases:
- ●When the data are recorded from a card to a tape.
- ●When recording proceeds with no input signals supplied.
- ●When recording involves the use of the S-Video or AV Input Jack.
- ●When pictures with no camera data are recorded using the DV Terminal.
- ●When displaying a list of titles.

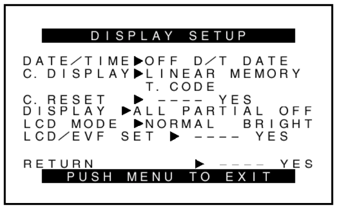
All of the other items on the [DISPLAY SETUP] Sub-Menu are the same as those on the [DISPLAY SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu.

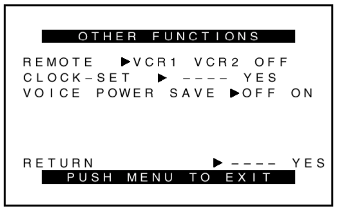
[OTHER FUNCTIONS] Sub-Menu

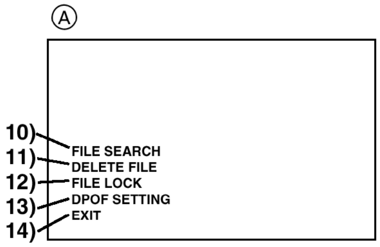
- ●Same as described on page 16.


DELETE CARD FILE
1)
2)
3)
1. DELETE FILE BY SELECTION
2. DELETE ALL FILES
3. DELETE TITLE BY SELECTION
RETURN ▶ ---- YES
PUSH MENU TO EXIT


CARD EDITING
4)
5)
6)
7)
8)
9)
RECORD TO TAPE ▶ ---- YES
FILE SEARCH ▶ ---- YES
FILE LOCK ▶ ---- YES
SLIDE SHOW ▶ ---- YES
DPOF SETTING ▶ ---- YES
CARD FORMAT ▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT


DISPLAY SETUP
DATE/TIME ▶OFF D/T DATE
C. DISPLAY ▶LINEAR MEMORY T. CODE
C. RESET ▶ ---- YES
DISPLAY ▶ALL PARTIAL OFF
LCD MODE ▶NORMAL BRIGHT
LCD/EVF SET ▶ ---- YES
RETURN ▶ ---- YES
PUSH MENU TO EXIT


OTHER FUNCTIONS
REMOTE ▶VCR1 VCR2 OFF
CLOCK-SET ▶ ---- YES
VOICE POWER SAVE ▶OFF ON
RETURN ▶ ---- YES
PUSH MENU TO EXIT


Ⓐ
10)
11)
12)
13)
14)
FILE SEARCH
DELETE FILE
FILE LOCK
DPOF SETTING
EXIT

Card Playback Mode Main-Menu [CARD FUNCTIONS]

[DELETE CARD FILE] Sub-Menu

1) Selecting and deleting a File [DELETE FILE BY SELECTION] **(➜ 42)**
2) Deleting All Files [DELETE ALL FILES] **(➜ 42)**
3) Selecting and Deleting a Title [DELETE TITLE BY SELECTION] **(➜ 42)**

[CARD EDITING] Sub-Menu

4) Recording to Cassette [RECORD TO TAPE] **(➜ 39)**
5) Searching a File [FILE SEARCH] **(➜ 39)**
6) Setting the Lock [FILE LOCK] **(➜ 42)**
7) Setting a Slide Show [SLIDE SHOW] **(➜ 40)**
8) Setting DPOF [DPOF SETTING] **(➜ 43)**
9) Formatting a Card [CARD FORMAT] **(➜ 43)**

[DISPLAY SETUP] Sub-Menu

- Same as described on page 16.

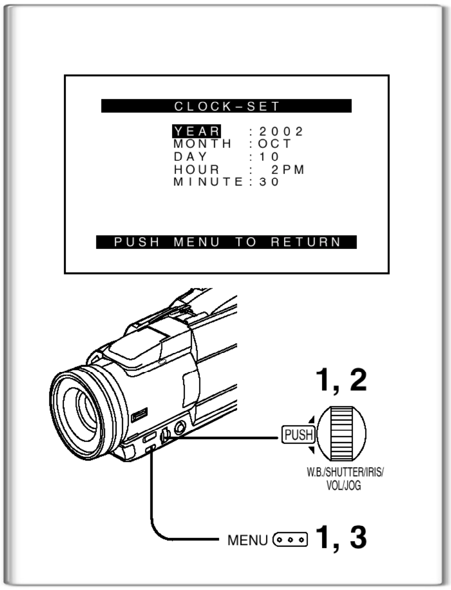
[OTHER FUNCTIONS] Sub-Menu

- Same as described on page 16.

Short-Cut Menus of the Card Playback Mode Ⓐ

If you use the Short-Cut Menu, the Card Playback Mode Menu can be called up quickly. Press the [PUSH] Dial to display the Short-Cut Menu, and turn the [PUSH] Dial to select the desired Menu.

10) [FILE SEARCH]:
    The [FILE SEARCH] Menu for finding files by number appears. **(➜ 39)**
11) [DELETE FILE]:
    The [DELETE FILE] Menu for deleting the file being displayed appears. **(➜ 42)** Use this Menu after the file to be erased appears.
12) [FILE LOCK]:
    The [FILE LOCK] Menu to prevent the accidental erasure of files (Lock Setting) being displayed appears. **(➜ 42)** Use this Menu after the file to be locked appears.
13) [DPOF SETTING]:
    The [DPOF SETTING] Menu for performing the DPOF settings for the displayed picture appears. **(➜ 43)** Use this Menu after the picture whose DPOF settings are to be performed has appeared.
14) [EXIT]:
    For terminating the Short-Cut Menu.

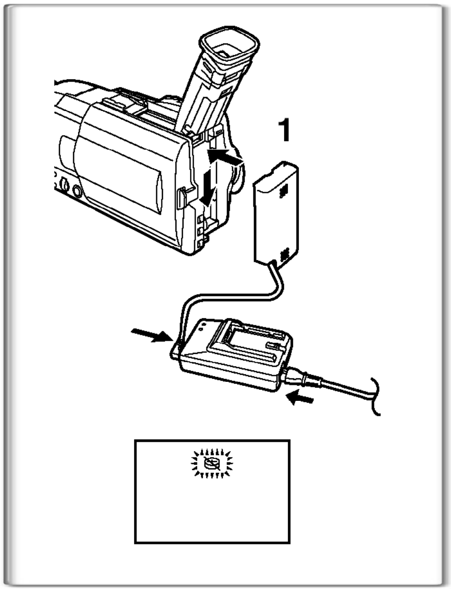


```
CLOCK-SET
YEAR   :2002
MONTH  :OCT
DAY    :10
HOUR   : 2PM
MINUTE:30
PUSH MENU TO RETURN
```

Setting Date and Time

1. **Press the [MENU] Button and rotate the [PUSH] Dial to select [OTHER FUNCTIONS] >> [CLOCK-SET] >> [YES].**
2. **Rotate and press the [PUSH] Dial to select [YEAR]/[MONTH]/[DAY]/[HOUR]/[MINUTE] and set it to a desired value.**
   - Year will cycle in the order shown below.
     2000, 2001, ..., 2089, 2000, ...
3. **Press the [MENU] Button to finish setting the date and time.**
   - The clock operation starts from [00] second.
   - The menu will disappear when the button is pressed again.

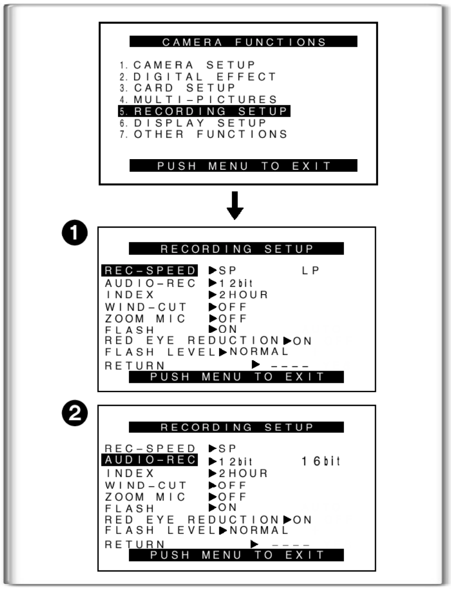
- It is possible that the built-in clock in the Palmcorder may become inaccurate. Please check the time before recording. If the [ ] Indication is flashing, charge the built-in lithium battery and reset the date and time.



Internal Lithium Battery Recharge

The internal lithium battery sustains the operation of the clock. When the [ ] Indication is lit, the internal lithium battery is near discharge.

1. **Connect the AC Adaptor to the Palmcorder with the power turned off and then connect to the AC Jack.**
   - After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.



```
CAMERA FUNCTIONS
1. CAMERA SETUP
2. DIGITAL EFFECT
3. CARD SETUP
4. MULTI-PICTURES
5. RECORDING SETUP
6. DISPLAY SETUP
7. OTHER FUNCTIONS
PUSH MENU TO EXIT
```

❶

```
RECORDING SETUP
REC-SPEED   ▶SP          LP
AUDIO-REC   ▶12bit
INDEX       ▶2HOUR
WIND-CUT    ▶OFF
ZOOM MIC    ▶OFF
FLASH       ▶ON
RED EYE REDUCTION▶ON
FLASH LEVEL▶NORMAL
RETURN          ▶ ----
PUSH MENU TO EXIT
```

❷

```
RECORDING SETUP
REC-SPEED   ▶SP
AUDIO-REC   ▶12bit      16bit
INDEX       ▶2HOUR
WIND-CUT    ▶OFF
ZOOM MIC    ▶OFF
FLASH       ▶ON
RED EYE REDUCTION▶ON
FLASH LEVEL▶NORMAL
RETURN          ▶ ----
PUSH MENU TO EXIT
```

LP Mode

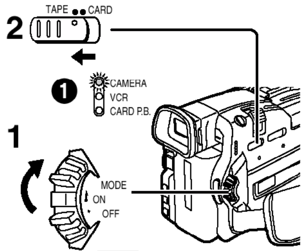
A desired recording speed can be selected with [REC-SPEED] on the [RECORDING SETUP] Sub-Menu. ❶

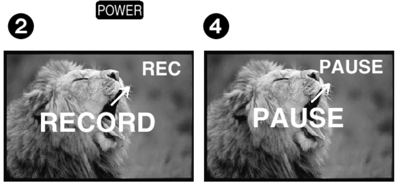
If LP Mode is selected, the recording time becomes 1.5 times longer than that of SP Mode.
Although the image quality does not decrease with the LP Mode recording, mosaic-like noise patterns may appear on a playback image, or some normal functions may be restricted.

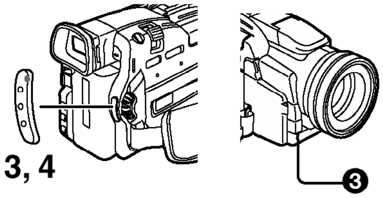
- The contents that are recorded in LP Mode are not completely compatible with other equipment.
- Audio Dubbing is not possible with LP Mode. **(➜ 34)**

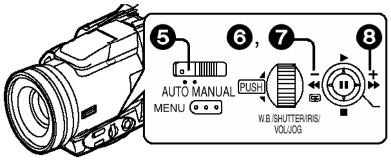
Audio Recording Mode

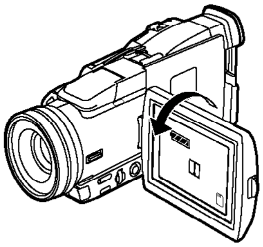
The sound quality of the recorded sound can be selected with [AUDIO-REC] on the [RECORDING SETUP] Sub-Menu. ❷
High sound-quality recording is possible with “16bit 48kHz 2 track” Mode. With the “12bit 32kHz 4 track” Mode, the original sound can be recorded on 2 tracks in stereo, while the other 2 tracks can be used for re-recording.

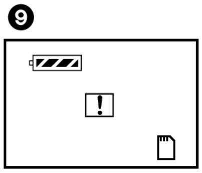












CAMERA Mode

Recording

1. **Set the [OFF/ON/MODE] Switch to [ON].**
   - The [CAMERA] Lamp lights up. ❶
2. **Slide the [TAPE/CARD] Selector towards [TAPE].**
3. **Press the Recording Start/Stop Button.**
   - Recording starts.
   - After the [RECORD] Indicator is displayed, it changes to [REC]. ❷
   - The Tally Lamp (LED Lamp) ❸ lights up during recording and alerts those being recorded that recording is in progress. The Tally Lamp does not light up if the [TALLY LED] on the [OTHER FUNCTIONS] Sub-menu is set to [OFF].
4. **Press the Recording Start/Stop Button again to pause the recording.**
   - [PAUSE] Indication is displayed. ❹

- If the Recording Pause Mode continues for more than 5 minutes, the power is turned off automatically for tape protection and power conservation. To resume recording from this condition, turn on the power again.
- When recording while the Mode Selector Switch is set to [AUTO] ❺, the Palmcorder automatically adjusts the focus and white balance. (In some cases, they cannot be adjusted automatically and need to be adjusted manually.) **(➜ 24, 25)**

■To Check the Recording

By pushing the Operation Lever towards [↩] ❻ in the Recording Pause Mode, you can play back the last few seconds of the recorded scene.

- [CHK] is displayed. After checking, the Palmcorder resumes the Recording Pause Mode.

■To View the recorded scene while the Recording is paused (Camera Search)

The recorded scene can be viewed by holding down the Operation Lever towards [−] ❼ or [+] ❽ in the Recording Pause Mode.

The Camera Search function is useful for finding the starting point of a new scene to create a smooth transition from one scene to another.

- When the Operation Lever is pushed towards [−], images are played back in the reverse direction.
- When the Operation Lever is pushed towards [+], images are played back in the forward direction.

■Self-Recording

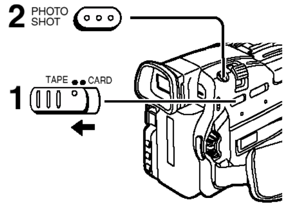
By opening the LCD Monitor and turning it so that it faces forward (to the lens side), you can let the subject in front of the Palmcorder monitor the shot while shooting is in progress.

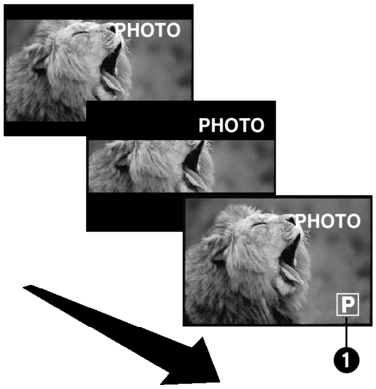
- When the LCD Monitor is opened, the Viewfinder is disabled automatically. However, when the LCD Monitor is rotated forward, the image is also shown in the Viewfinder.
- If you prefer to have the image on the LCD Monitor to look like an image in a mirror, set [SELF-REC] on the [OTHER FUNCTIONS] Sub-Menu to [MIRROR]. (Mirror Mode)
  Images are recorded normally and no left and right reversal occurs.
- If [MIRROR] is selected, only recording Indication [●], recording pause Indication [●❚❚], Card PhotoShot Indication [▯] and Remaining Battery Power Indication [▰▰▰] are displayed ❾. If a general Warning/Alarm Indication [!] appears, return the LCD Monitor to the original position in order to check the specific content of the Warning/Alarm Indication.

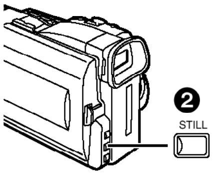
■To Finish the Recording

Set the [OFF/ON/MODE] Switch to [OFF].

- For other notes, see page 59.







PhotoShot Recording on the DV Cassette

With this function, you can record still pictures with sound for approximately 7 seconds each on the Cassette.

1. **Slide the [TAPE/CARD] Selector to [TAPE].**
2. **Press the [PHOTO SHOT] Button in the Recording Pause Mode.**
   - The Palmcorder records a still picture for about 7 seconds and then switches back to the Recording Pause Mode.

- Photoshot Recording results in slightly inferior image quality.

■Progressive PhotoShot$^{\text{TM}}$ Mode

With the Progressive PhotoShot$^{\text{TM}}$ Mode, you can record still pictures with higher resolution than with the normal PhotoShot Function.

- After setting [PROGRESSIVE] on the [CAMERA SETUP] Sub-menu to [ON] or [AUTO], press the [PHOTO SHOT] Button in the Recording Pause Mode. [P] is displayed. ❶
- This Function may not work with some function settings. **(➜ 59)**
- If you select Card Mode, [PROGRESSIVE] is set to [ON].

■Continuous PhotoShot

If the [PHOTO SHOT] Button is held down with the [SHUTTER] of the Sub-Menu [OTHER FUNCTIONS] set to [ON], the Palmcorder will record still images without interruptions every 0.7 seconds until the button is released.

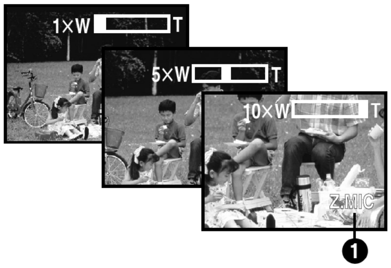
- The screen blinks and, at the same time, a shutter clicking sound is recorded. (This function, however, is not enabled when Progressive PhotoShot is set to [ON] or [AUTO].)

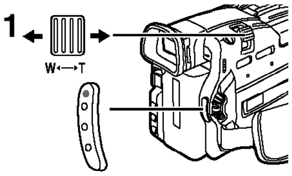
■Digital Still Picture

When the [STILL] Button ❷ is pressed, images become still pictures. When the Button is pressed again, the Digital Still Picture Mode is cancelled.

- We recommend that you press the [STILL] Button first at the position where you want to record the picture and then press the [PHOTO SHOT] Button.

- For the still pictures taken in the Continuous PhotoShot Mode or Digital Still Picture Mode, PhotoShot index signals are not recorded.





Zoom In/Out Functions

It gives special effects to the Palmcorder by Recording objects close by or with wide-angle shot.

1. **For wide-angle shots (zoom out):**
   Press the [W/T] zoom lever towards [W].
   For close-ups (zoom in):
   Press the [W/T] zoom lever towards [T].

- Zoom magnification is displayed for a few seconds.
- Generally speaking, when the [W/T] zoom lever is pressed further towards [W] or [T], the zooming speed gradually increases.

Taking Close-up Shots of Small Subjects (Macro Close-up Function)

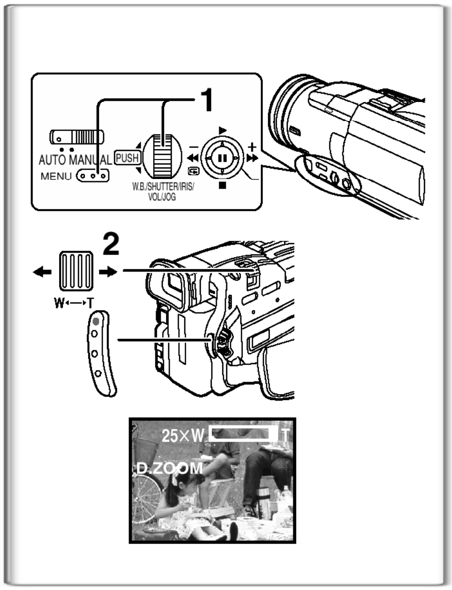
When the zoom magnification is 1×, the Palmcorder can focus on a subject that is as close as approximately 1.5 inches (35 mm) from the lens. With this, small subjects, such as insects, can be recorded.

To Use the Zoom Microphone Function

Along with the zooming operation, the microphone's directional angle and sensitivity are varied for recording audio.

- Set [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [ZOOM MIC] >> [ON]. (The [Z.MIC] Indication is displayed. ❶)
- The Zoom Microphone Function may not work effectively if the surrounding noise is too loud.
- When the [TAPE/CARD] Selector is set to [CARD], the Zoom Microphone Function does not work.

- For other notes, see page 59.



Digital Zoom Function

This function is useful when you want to record close-up shots of subjects located beyond a normal zoom range of 1× to 10× magnification. With the digital zooming Function, you can select a magnification of 25× or 200×.

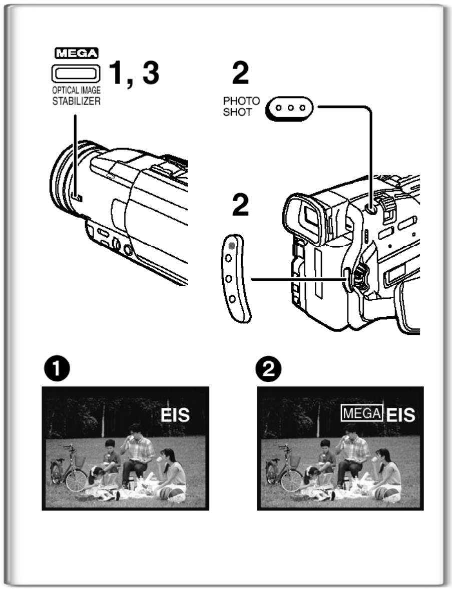
1. **Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [D.ZOOM] >> [25×] or [200×].**
   - 25×: Digital zooming to 25×
   - 200×: Digital zooming to 200×
2. **To zoom in or out, press the [W/T] zoom lever towards [T] or towards [W].**

- As the magnification of digital zooming increases, the quality of image may deteriorate.

Cancelling the Digital Zooming Function

Set [D.ZOOM] on the [CAMERA SETUP] Sub-menu to [OFF].

- For other notes, see page 59.



Optical Image Stabilizer Function

If you are recording in unstable situations and the Palmcorder is shaky, you can use this function to correct for camera shake in these images.

- If the Palmcorder shakes too much, this function may not be able to stabilize images.

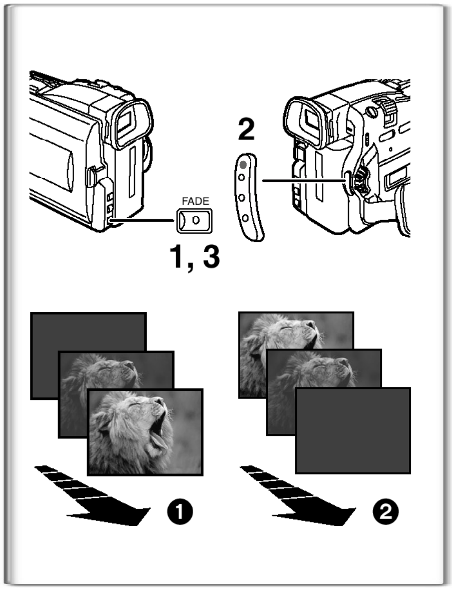
1. **Press the [OPTICAL IMAGE STABILIZER] Button until the [EIS] Indication ❶ appears.**
2. **Press the Recording Start/Stop Button or [PHOTO SHOT] Button to start recording.**

MEGA EIS (Optical Image Stabilizer) Function

This function increases the effect. We recommend using MEGA EIS (Optical Image Stabilizer) Function when performing Card Photo Shot Function.

3. **Press the [OPTICAL IMAGE STABILIZER] Button repeatedly until the [MEGA EIS] Indication ❷ appears.**

- For other notes, see page 59.



Fade In/Out Functions

Fade In ❶

Fade In brings out images and sounds gradually from a black screen at the beginning of a scene.

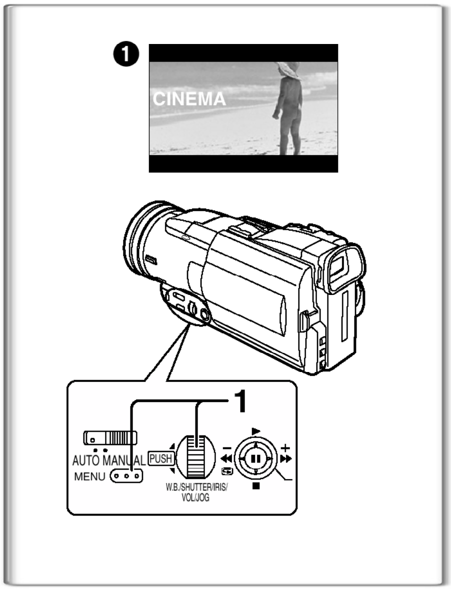
1. **Hold down the [FADE] Button while the Palmcorder is set to the Recording Pause Mode.**
   - The image fades out gradually.
2. **When the image is completely gone, press the Recording Start/Stop Button to start recording.**
3. **Release the [FADE] Button about 3 seconds after starting recording.**
   - The image reappears gradually.

Fade Out ❷

Fade Out causes images and sounds to disappear gradually, leaving a black screen at the end of a scene.

1. **Hold down the [FADE] Button while recording.**
   - The image fades out gradually.
2. **About 3 seconds after the image is completely gone, press the recording Start/Stop Button to stop recording.**
3. **Release the [FADE] Button.**

- For other notes, see page 59.



Cinema Function

This function is for recording in a cinema-like wide screen.

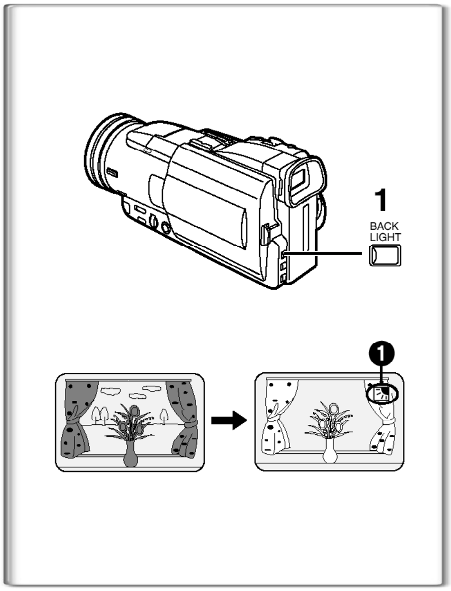
1 **Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [CINEMA] >> [ON].**

- Black bars appear at the top and bottom of the screen. ❶

To Cancel the Cinema Mode

Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [CINEMA] >> [OFF].

- For other notes, see page 60.



Backlight Compensation Function

This prevents a recording subject from being recorded darker in Backlight. (Backlight is the light that shines from behind a recording subject.)

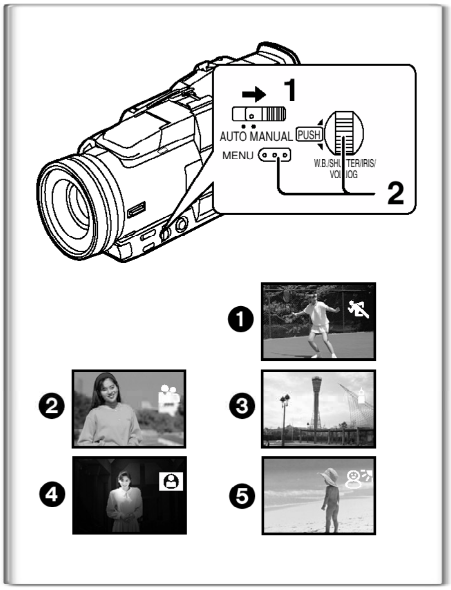
1 **Press the [BACKLIGHT] Button.**

- The [☐] Indication ❶ flashes and then is displayed.

To resume normal Recording

Press the Backlight Button [BACKLIGHT].

- When the [BACKLIGHT] Button is pressed, the entire screen becomes brighter.
- By operating the [OFF/ON/MODE] Switch, the Backlight Compensation Function is cancelled.



Recording in Special Situations

(Program AE)

Select optimal automatic exposures under specific recording situations.

1 **Set the Mode Selector Switch to [MANUAL].**

- The [MNL] Indication appears.

2 **Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [PROG.AE] >> a desired Mode [🎾], [👥], [🕯], [👤], [☀].**

- The Indication of the selected Mode is displayed.

[🎾] Sports Mode ❶

For Recording scenes involving quick movements, such as sports scenes.

[👥] Portrait Mode ❷

Focuses on the main subject of the image and leaves the background slightly out of focus.

[🕯] Low Light Mode ❸

Preserves the mood of dim light settings without altering picture brightness.

[👤] Spotlight Mode ❹

Neutralizes the additional brightness created by a spot light.

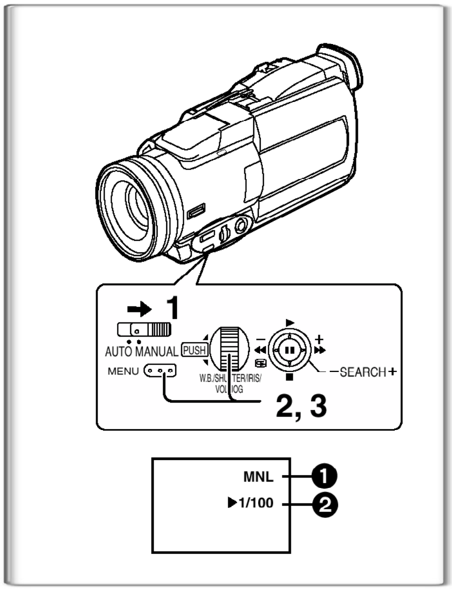
[☀] Surf & Snow Mode ❺

Compensates for excessive illumination from sun glare to produce a clear picture.

Cancelling the Program AE Function

Set [PROG.AE] on the [CAMERA SETUP] Sub-Menu to [OFF]. Or, set the Mode Selector Switch to [AUTO].

- For other notes, see page 60.



Manual Shutter Speed Adjustment

Useful for Recording fast-moving subjects.

1 **Set the Mode Selector Switch to [MANUAL].**
- The [MNL] Indication ❶ appears.

2 **Press the [PUSH] Dial repeatedly until the shutter speed Indication ❷ appears.**

3 **Rotate the [PUSH] Dial to adjust the shutter speed.**

The Range of Shutter Speed Adjustment

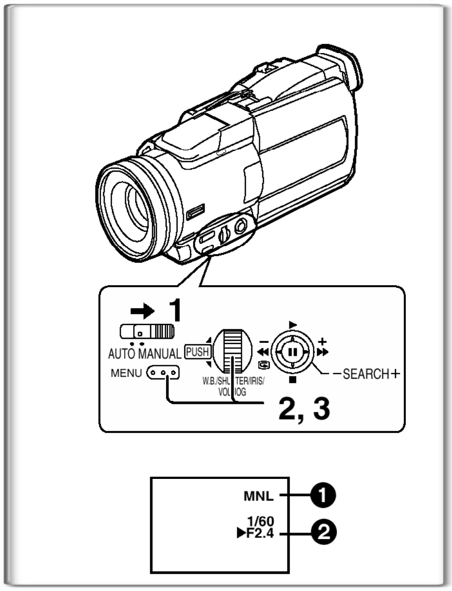
1/60–1/8000 (or 1/30–1/500 in Card Mode)
The standard shutter speed is 1/60 (or 1/30 in Card Mode).
Selecting a speed closer to [1/8000] causes the shutter speed to be faster and light level to be lower.

- When the progressive function is [ON], a speed only up to 1/500 can be used.

To Resume Automatic Adjustment

Set the Mode Selector Switch to [AUTO].

- For other notes, see page 60.



Manual Iris Adjustment (F Number)

You can use this function when the screen is too bright or too dark.

1 **Set the Mode Selector Switch to [MANUAL].**
- The [MNL] Indication ❶ appears.

2 **Press the [PUSH] Dial repeatedly until the Iris Indication ❷ appears.**

3 **Rotate the [PUSH] Dial to adjust the iris.**

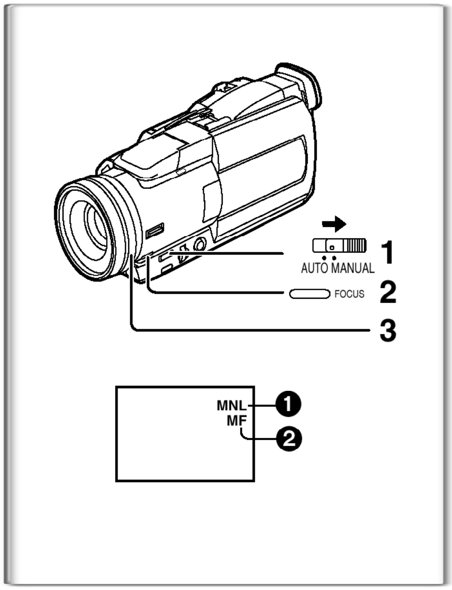
Adjustable Range of the Iris

CLOSE (Closed), F16, ..., F1.7,
OP (Opened) 0dB, ..., 18dB
When a value closer to [CLOSE] is selected, the image becomes darker.
When a value closer to [OP+18dB] is selected, the image becomes brighter.
The value to which +dB is attached indicates a gain value. If this value is too large, the quality of the image deteriorates.

To Resume Automatic Adjustment

Set the Mode Selector Switch to [AUTO].

- For other notes, see page 60.



Manual Focus Adjustment

Focus can be adjusted manually for recording in a situation where auto focus may not function well.

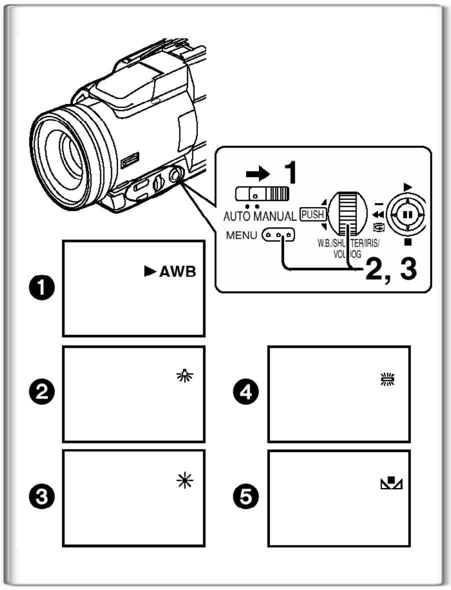
1 **Set the Mode Selector Switch to [MANUAL].**
- The [MNL] Indication ❶ appears.

2 **Press the [FOCUS] Button.**
- The [MF] Indication (Manual Focus Mode) ❷ appears.

3 **Rotate the Focus Ring to adjust the focus.**

To Resume Automatic Adjustment

Press the [FOCUS] Button to turn off the [MF] Indication. Or, set the Mode Selector Switch to [AUTO].



Recording in Natural Colors

(White Balance)

Depending on the scene or light conditions, the Automatic White Balance Adjustment Mode may not be able to bring out natural colors. In such a case, the white balance can be adjusted manually.

1 **Set the Mode Selector Switch to [MANUAL].**
- The [MNL] Indication appears.

2 **Press the [PUSH] Dial.**
- The [AWB] Indication appears.

3 **Rotate the [PUSH] Dial to set a desired White Balance Mode.**

❶ Automatic White Balance Adjustment [AWB]
❷ Indoor Mode (shooting under incandescent lamp)
❸ Outdoor Mode
❹ Fluorescent light Mode
❺ The White Balance setting that was previously set manually

To Resume Automatic Adjustment

Rotate the [PUSH] Dial until the [AWB] Indication appears. Or, set the Mode Selector Switch to [AUTO].

- For other notes, see page 60.

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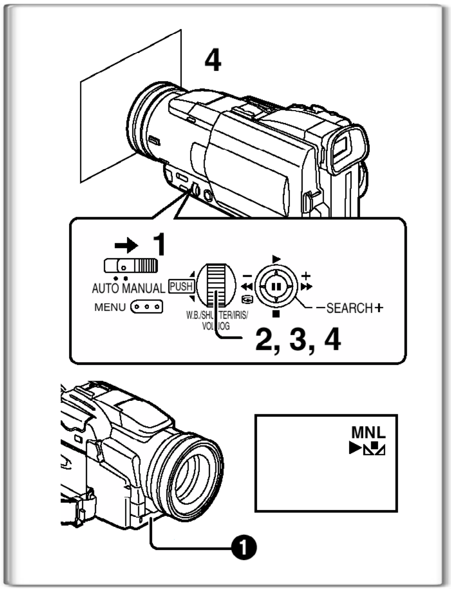


Adjusting White Balance Manually

When the Auto White Balance Adjustment function does not operate under the existing light conditions, use the Manual White Balance Adjustment mode.

1 **Set the Mode Selector Switch to [MANUAL].**
- The [MNL] Indication appears.

2 **Press the [PUSH] Dial.**
- The [AWB] Indication appears.

3 **Rotate the [PUSH] Dial until the [⊿] Indication is displayed.**

4 **Point the Palmcorder at a full-screen white subject, and then keep the [PUSH] Dial pressed until Indication [⊿] stops flashing.**
- When the [⊿] Indication flashes after turning the Palmcorder on, the previously adjusted white balance setting is still kept.

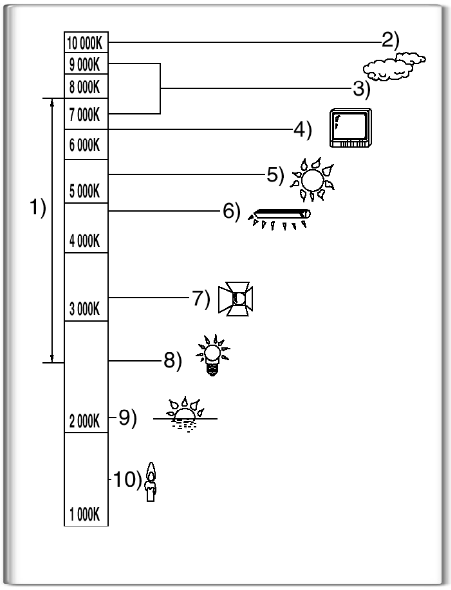
To Resume Automatic Adjustment

Rotate [PUSH] Dial until the [AWB] Indication is displayed. Or, set the Mode Selector Switch to [AUTO].

■About White Balance Sensor

The White Balance Sensor ❶ determines the nature of the light source during recording.

- Do not cover the White Balance Sensor with your hand during recording. Otherwise, White Balance will not work normally.



Use of Auto White Balance Adjustment in inappropriate lighting conditions may result in reddish or bluish images. Where the subject is found on the left but surrounded by many light-sources, Auto White Balance Adjustment may not operate properly. In such a case, we suggest that you adjust the White Balance.

1) The range that is controlled by the Auto White Balance Adjustment Mode of this Palmcorder
2) Blue sky
3) Cloudy sky (Rain)
4) TV screen
5) Sunlight
6) White fluorescent light
7) Halogen light bulb
8) Incandescent light bulb
9) Sunrise and sunset
10) Candlelight

- For other notes, see page 60.
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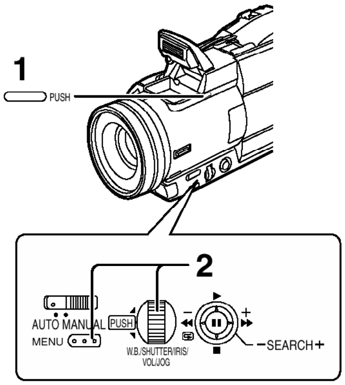
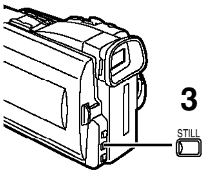
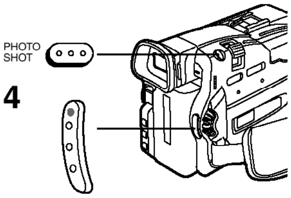
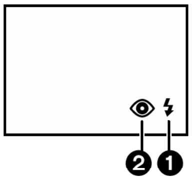








Using the Video Flash

The Built-in Video Flash enables you to record still pictures in a dark place.

1. **Press the [PUSH] Button to open the Video Flash.**
2. **Set [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [FLASH] >> [ON] or [AUTO].**
   - If [AUTO] is selected, Video Flash is set off if light is needed by sensing the surrounding luminosity.
3. **Press the [STILL] Button.**
   - Video Flash is set off.
4. **Press the [PHOTO SHOT] Button or Recording Start/Stop Button.**
   - Video Flash is not set off when recording.

- If either [ϟ], [ϟ+] or [ϟ−] Indication is lit, flash is set off. If flashing or dark, Video Flash is not set off.
- The available range of the Video Flash is approximately 1 to 2.5 meters in a dark place. Pictures will appear dark when they are recorded by using the Video Flash at distances greater than 2.5 meters.
- Object of recording may appear dark if flash is set off in front of white background.
- Using Tele Conversion Lens (not supplied) or Wide Conversion Lens (not supplied) can block flash light and may cause vignetting effect.

Adjusting Brightness of the Video Flash

Brightness of the Video Flash can be set in [FLASH LEVEL] on the [RECORDING SETUP] Sub-Menu.
Set [FLASH LEVEL] on the [RECORDING SETUP] Sub-Menu to desired Flash Level.

- Normally, set it to [NORMAL] ([ϟ] Indication ❶ appears).
- If the brightness is not enough in [NORMAL] setting, set it to [+] ([ϟ+] Indication appears), if it is too much, set it to [−] ([ϟ−] Indication appears).

To reduce the “Red Eye” phenomenon

Set the [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [RED EYE REDUCTION] >> [ON].

- The [◉] Indication ❷ appears when Video Flash is opened.
- You may still experience red eye phenomenon, depending on recording conditions.

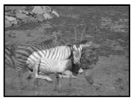
- For other notes, see page 60.

1) MULTI

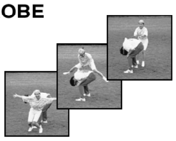
2) P-IN-P

3) WIPE

4) MIX

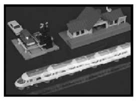


5) STROBE



6) MAGICPIX

7) TRAIL



8) MOSAIC

9) MIRROR

10) NEGA

11) SEPIA

12) MONO

13) SOLARI

Digital Effect Functions

This Palmcorder is equipped with digital effect functions that add special effects to the scene.

Digital Effects 1 [EFFECT1]

1) [MULTI] Multi-Picture Mode
2) [P-IN-P] Picture-in-Picture Mode
3) [WIPE] Wipe Mode
4) [MIX] Mix Mode
5) [STROBE] Strobe Mode
   - ●Records images with a stroboscopic effect.
6) [MAGICPIX] Gain-up Mode
   - ●Brightens images electronically.
   - ●Adjust focus manually when using this Mode.
7) [TRAIL] Trailing Effect Mode
   - ●Records images with a trailing effect.
8) [MOSAIC] Mosaic Mode
   - ●Produces a mosaic-like image.
9) [MIRROR] Mirror Mode
   - ●The right half of an image becomes a mirror image of the left half.

Digital Effects 2 [EFFECT2]

10) [NEGA] Negative Mode
    - ●The colors of the recorded image are inverted as seen in a negative.
11) [SEPIA] Sepia Mode
    - ●Records a scene with a brownish tint, like the color of old pictures.
12) [MONO] Black & White Mode
    - ●Records an image in black and white.
13) [SOLARI] Solarization Mode
    - ●Records an image with a painting-like effect.

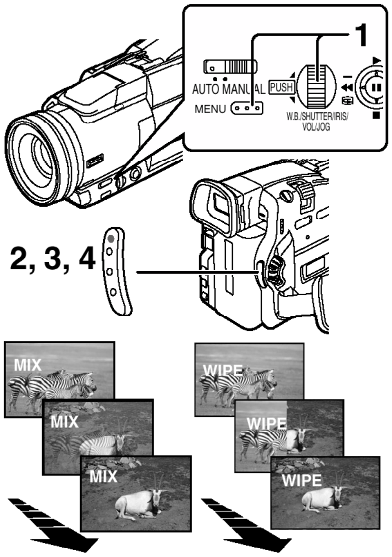
Selecting a desired digital effect

Set [CAMERA FUNCTIONS] >> [DIGITAL EFFECT] >> [EFFECT1] or [EFFECT2] >> a desired digital effect.

Cancelling the digital effect

Set [CAMERA FUNCTIONS] >> [DIGITAL EFFECT] >> [EFFECT1] or [EFFECT2] >> [OFF].

●For other notes, see page 61.



■Wipe Mode and Mix Mode

Wipe Mode:
Like a curtain is being pulled, the still picture of the last recorded scene gradually changes to the moving image of a new scene.

Mix Mode:
While the moving image of a new scene fades in, the still image of the last recorded scene gradually fades out.

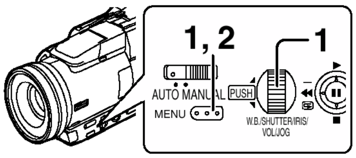
1 **Set [DIGITAL EFFECT] >> [EFFECT1] >> [WIPE] or [MIX] after pressing the [MENU] Button.**
   - ●The [WIPE] or [MIX] Indication appears.

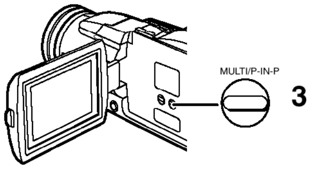
2 **Press the Recording Start/Stop Button to start Recording.**

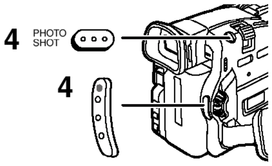
3 **Press the Recording Start/Stop Button to pause the Recording.**
   - ●The last scene is stored in memory. The [WIPE] or [MIX] Indication changes to[WIPE] or [MIX].

4 **Press the Recording Start/Stop Button to restart the Recording.**
   - ●The last image of the previous scene gradually changes to the new scene.

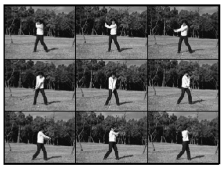
●For other notes, see page 61.







❶



❷

Multi-Picture Mode

Strobe Multi-Picture Mode ❶:
You can capture and record 9 consecutive small still pictures.
Manual Multi-Picture Mode ❷:
You can manually capture and record 9 small still pictures.

After setting [CAMERA FUNCTIONS] >> [DIGITAL EFFECT] >> [EFFECT1] >> [MULTI]...

1 **Set [CAMERA FUNCTIONS] >> [MULTI-PICTURES] >> [SCAN MODE] >> [STROBE] or [MANUAL].**

When [STROBE] is selected:

- Set the [SPEED] to a desired strobe speed.

[FAST]:	You can capture 9 consecutive still pictures within approximately 1 second
[NORMAL]:	You can capture 9 consecutive still pictures within approximately 1.5 seconds
[SLOW]:	You can capture 9 consecutive still pictures within approximately 2 seconds

- If you set [SWING] on the [MULTI-PICTURES] Sub-Menu to [ON], the intervals at which the 9 still pictures are taken are longer at the beginning and end than in the middle of the swing strobe period, and it is useful for analyzing swing motion, etc., in sports.

When [MANUAL] is selected:

- You can select a desired scene one at a time up to 9 small pictures.

2 **Exit the menu by pressing the [MENU] Button.**

3 **Press the [MULTI] Button.**

- If [MANUAL] is selected, press the [MULTI] Button at each scene you want to capture.

4 **Press the Recording Start/Stop Button or the [PHOTO SHOT] Button to record on the Cassette.**

Deleting all the captured Multi-Pictures

While 9 multi-pictures are displayed, press the [MULTI] Button.

- If [MANUAL] has been selected, press the [MULTI] Button after 9 pictures are displayed.

To Display the Multi-Pictures again

Press the [MULTI] Button for 1 second or longer.

To Delete Multi-Pictures one by one (When pictures were captured in [MANUAL])

When the [MULTI] Button is pressed for 1 second or longer while the still pictures are displayed, the picture captured last is deleted. If you keep pressing the [MULTI] Button, the pictures are deleted continuously.

- After still pictures are deleted one by one, they cannot be displayed again.

- For other notes, see page 61.

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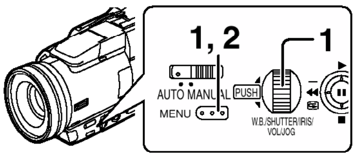

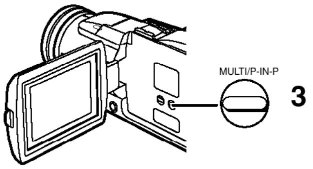

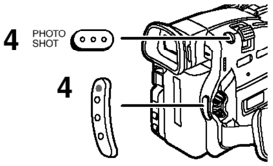

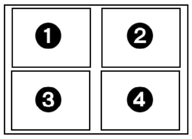

Picture-in-Picture Mode

You can display a sub-screen (still picture) inside the screen.

After setting [CAMERA FUNCTIONS] >> [DIGITAL EFFECT] >> [EFFECT1] >> [P-IN-P]...

1 **Select [P-IN-P] on the [MULTI-PICTURES] Sub-Menu and set the position (❶❷❸❹) where you want to insert a small still picture.**

2 **Exit the menu by pressing the [MENU] Button.**

3 **Aim the Palmcorder at the scene you want to capture and press the [P-IN-P] Button to insert a small still picture.**

- A small still picture is displayed in a Normal picture.
- If the [P-IN-P] Button is pressed again, the small still picture is cleared.

4 **Press the Recording Start/Stop Button or the [PHOTO SHOT] Button to record on the Cassette.**

- For other notes, see page 61.
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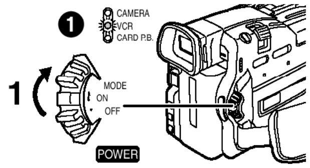
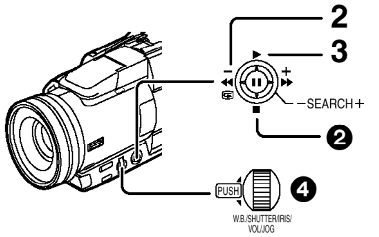
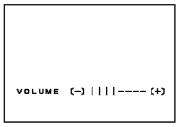




❸



VCR Mode

Playing Back

The recorded scene can be played back immediately after recording.

1 **Slide the [OFF/ON/MODE] Switch and set the Palmcorder in the VCR Mode.**
- ●The [VCR] Lamp lights up. ❶

2 **Push the Operation Lever towards [◀◀] to rewind the tape.**
- ●Rewind the tape to the point where you want to start playback.
- ●When the tape reaches the beginning, rewinding stops automatically.

3 **Push the Operation Lever towards [▶] to start playback.**

To Stop Playback

Push the Operation Lever towards [■] ❷.

●If a Cassette recorded with copyright protection signals is played back, the screen becomes blue or mosaic-like noise patterns appear.

■Adjusting the Sound Volume

Until the [VOLUME] Indication ❸ appears, keep pressing the [PUSH] Dial ❹. Then, rotate the [PUSH] Dial to adjust the volume. After the adjustment, press the [PUSH] Dial to make the [VOLUME] Indication disappear.

To adjust the volume with the Remote Controller, press the [T] or [W] Button to display the [VOLUME] Indication. Press the [T] Button to increase the volume or press the [W] Button to decrease the volume. The [VOLUME] Indication goes off 2 or 3 seconds after the adjustment is finished.

●When the Playback Zoom Function is in use, the sound volume cannot be adjusted.

●For other notes, see page 61.

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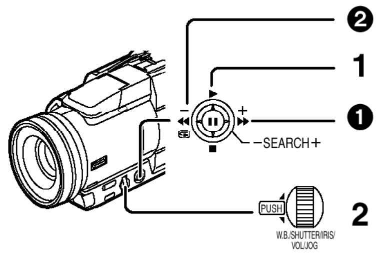

Ⓐ

Ⓑ

Ⓒ

Ⓓ

Finding a Scene You Want to Play Back

■Cue/Review Playback

Cue Playback Ⓐ

Push the Operation Lever towards [▶▶] ❶ during playback.

Review Playback Ⓑ

Push the Operation Lever towards [◀◀] ❷ during playback.

●If the Operation Lever is held continuously, it turns to Cue Playback or Review Playback until you release it.

●If the Operation Lever is pushed briefly, Cue Playback or Review Playback continues even when it is released.

■Hyper Check Function

If you press the [▶▶] Button during fast-forwarding of the tape or the [◀◀] Button during rewinding of the tape, Cue Playback or Review Playback continues for as long as the Button is held down.

■Variable Speed Search Function

The speed of Cue Playback or Review Playback can be varied.

1 **During playback, push the Operation Lever towards [▶].**
- ●[1×▷] Indication appears. Ⓒ

2 **Rotate the [PUSH] Dial and select a desired search speed.**

The following 6 playback speeds are available for the Variable Speed Search Function in both the fast-forwarding and rewinding directions. 1/5× (slow playback, SP mode only), 1/3× (slow playback, LP mode only), 1×, 2×, 5×, 10×, and 20×.

●The same setting can be performed using the Remote Controller's the [VAR.SEARCH] Button, the [▲] Button and the [▼] Button.

Resuming Normal Playback

Push the Operation Lever towards [▶].

●During Cue or Review Playback, fast-moving images may show mosaic-like noise patterns. This is not a malfunction.

●The sound is muted during search.

■Repeat Playback

If you continue to push the Operation Lever towards [▶] for 5 seconds or longer, the Palmcorder switches to Repeat Playback Mode, and the [R ▷] Indication appears Ⓓ. (To cancel Repeat Playback Mode, set the [OFF/ON/MODE] Switch to [OFF].)
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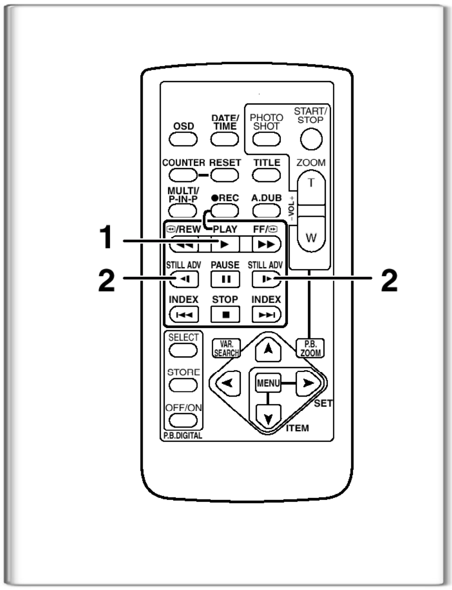

OSD
DATE/ TIME
PHOTO SHOT
START/ STOP
COUNTER
RESET
TITLE
ZOOM
T
W
VOL
MULTI/ P-IN-P
●REC
A.DUB
/REW
PLAY
FF/
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
P.B.DIGITAL
ITEM
1
2
2

Slow Motion Playback

This Palmcorder can play back at a slow speed.

1 Press the [▶] Button.

2 Press the [◀❙] Button or the [❙▶] Button on the Remote Controller.

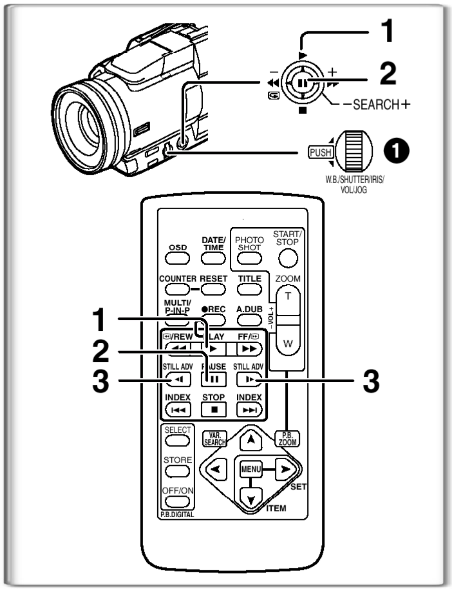
- ●When the [◀❙] Button is pressed, Slow Motion Playback proceeds in the reverse direction, while pressing the [❙▶] Button starts Slow Motion Playback in the forward direction.

Scenes recorded in the SP mode are played back at approximately 1/5th of the normal speed.

Scenes recorded in the LP mode are played back at approximately 1/3rd of the normal speed.

Resuming Normal Playback

Press the [▶] Button.


1
2
SEARCH
PUSH
❶
W.B./SHUTTER/IRIS/ VOL/JOG
OSD
DATE/ TIME
PHOTO SHOT
START/ STOP
COUNTER
RESET
TITLE
ZOOM
MULTI/ P-IN-P
●REC
A.DUB
/REW
PLAY
FF/
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
P.B.DIGITAL
ITEM
1
2
3
3

Still Playback/Still Advance Playback

This Palmcorder is capable of still picture playback and frame-advance playback.

1 Push the Operation Lever towards [▶] or press the [▶] Button on the Remote Controller.

2 Push the Operation Lever towards [❚❚] or press the [❚❚] Button on the Remote Controller.

- ●The playback image stops in the Still Playback Mode.

3 Press the [◀❙] Button or the [❙▶] Button on the Remote Controller.

- ●With each pressing of the [◀❙] Button, still pictures advance in the reverse direction. With each pressing of the [❙▶] Button, still pictures advance in the forward direction. If either one of the Buttons is pressed continuously, still pictures advance continuously one frame at a time until the Button is released.

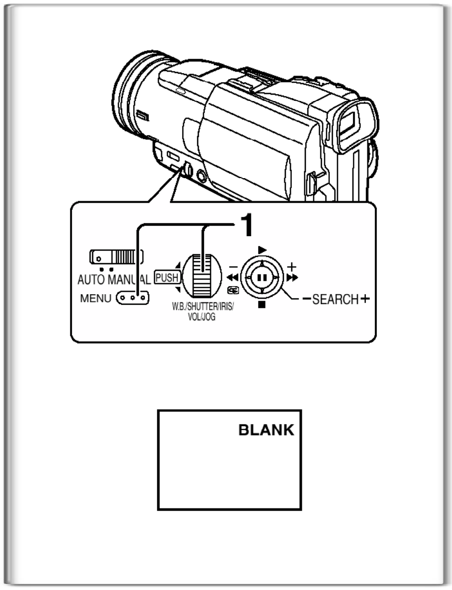
Resuming Normal Playback

Press the [▶] Button or [❚❚] Button on the Remote Controller.

■Jog Playback

By rotating the Jog Dial ([PUSH] Dial) ❶ of the Palmcorder in the Still Playback Mode, still pictures can be advanced one frame at a time in the forward or reverse direction.

- ●If the Palmcorder is left in the Still Playback Mode for more than 5 minutes, the Palmcorder switches to the Stop Mode to protect the video heads from excessive wear and tear.


1
AUTO MANUAL
MENU
PUSH
W.B./SHUTTER/IRIS/ VOL/JOG
SEARCH
BLANK

Finding the End of a Recording

(Blank Search Function)

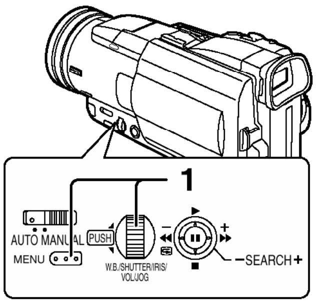
The Blank Search Function helps you to locate the end of a Recording on the Cassette quickly.

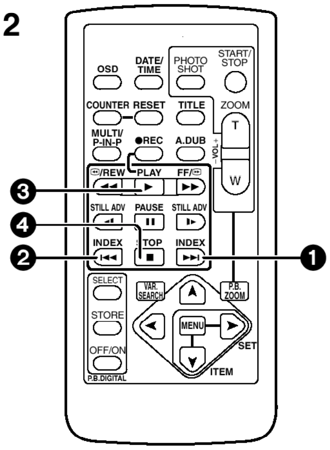
1 Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [BLANK SEARCH] >> [YES].

- ●The [BLANK] Indication appears.
- ●Approximately 1 second before the last recorded scene, the Palmcorder switches to the Still Playback Mode.
- ●If there is no blank portion left on the Cassette, the Palmcorder stops at the end of the tape.

Cancelling Blank Search prior to completion

Push the Operation Lever towards [■].


1
AUTO MANUAL
MENU
PUSH
W.B./SHUTTER/IRIS/VOL/JOG
−
+
SEARCH+


2
OSD
DATE/TIME
PHOTO SHOT
START/STOP
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●REC
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PAUSE
STILL ADV
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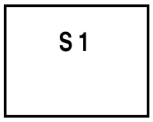
❸
❹
❷
❶
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
P.B.DIGITAL
ITEM

①

②



Index Search Functions

To facilitate searching of desired scene, this Palmcorder automatically records index signals during recording, as explained in the following.

PhotoShot Index Signal

These signals are automatically recorded whenever still pictures are taken in PhotoShot Mode **(➜ 21)**.

When recording still pictures using the Continuous PhotoShot Mode **(➜ 21)**, the index signal is not recorded.

Scene Index Signal

Scene Index Signals are automatically recorded when you start recording after inserting a Cassette.

However, if the Palmcorder is switched from the VCR Mode to Camera Mode or if the date and time is set before the start of recording, the index signal is not recorded.

- If [INDEX] of [RECORDING SETUP] Sub-Menu on the [CAMERA FUNCTIONS] Main-Menu is set to [2HOUR], an index signal is recorded when Recording is restarted after a lapse of 2 hours or longer. If it is set to [DAY], an index signal is recorded when recording is restarted after the date has changed since the last recording. (While the index signal is recorded, the [INDEX] Indication ① flashes for a few seconds.)

■PhotoShot Index Search

1 **Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [INDEX] >> [PHOTO].**

2 **Press the [▶▶|] Button ❶ or the [|◀◀] Button ❷ on the Remote Controller.**

- With each press of the corresponding button, still pictures recorded in PhotoShot Mode are searched.
- After Pictures with Sounds are played back for 4 seconds, the Palmcorder switches to the Still Playback Mode.

■Scene Index Search

1 **Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [INDEX] >> [SCENE].**

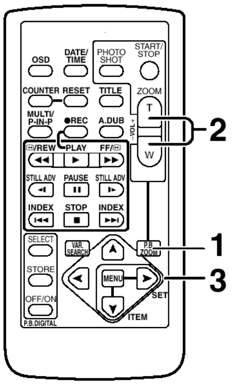
2 **Press the [▶▶|] Button ❶ or the [|◀◀] Button ❷ on the Remote Controller.**

- When the corresponding Button is pressed once, the [S 1] Indication ② appears, and searching of the subsequent scene marked with an index signal starts. Each time the button is pressed after the start of Scene Index Search, the indication changes from [S 2] to [S 9], and the beginning of the scene corresponding to the selected number will be searched. After reaching the desired scene, playback starts automatically.
- Up to 9 scene numbers can be selected.

Top Scan

If the [▶▶|] Button or the [|◀◀] Button is pressed for more than 2 seconds, the Palmcorder will scan for scenes (or PhotoShots) and playback the first few seconds of each. (To cancel, press the [▶] Button ❸ or the [■] Button ❹.)

- For other notes, see page 61.


OSD
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STILL ADV
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INDEX
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VAR. SEARCH
P.B. ZOOM
STORE
MENU
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OFF/ON
ITEM
P.B.DIGITAL
2
1
3

Playback Zoom Function

A part of the image can be enlarged up to 10 times during playback.

1 During playback, press the Playback Zoom Button [P.B. ZOOM] on the Remote Controller.

- The center of the image is enlarged to approximately double the size.

Changing the Zoom Magnification

2 Change the magnification by pressing the [W] or [T] Button on the Remote Controller.

- You can increase the magnification up to 10×.

Changing the enlarged area of an image

3 Press the Arrow Button (▲, ◄, ►, ▼) on the Remote controller that points to the area you want to enlarge.

Cancelling the Playback Zoom Function

Press the [P.B. ZOOM] Button on the Remote Controller.

- For other notes, see page 61.

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Playback Digital Effect Functions

During playback, special Digital Effects can be added to the Recording. The digital effects that may be applied in the process of recording (except Picture in Picture Mode) will be the same as these added effects.

1 Press the [▶] Button.

2 Press the [SELECT] Button of the Remote Controller and select desired Digital Effect .

- When the [SELECT] Button is pressed repeatedly, the Digital Effect selection changes.
  MULTI →WIPE→MIX→STROBE →NEGA→SEPIA→MONO →TRAIL→ SOLARI →MOSAIC→ MIRROR
- The same setting can also be set using the [DIGITAL EFFECT] on the [VCR FUNCTIONS] Main-Menu.

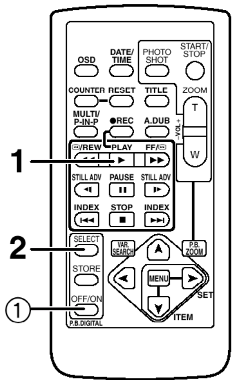
Suspending Playback Digital Effect temporarily

Press the [OFF/ON] Button ① to clear or restart the digital effect. When the Digital effect is paused temporarily, the selected effect's indication flashes.

Cancelling the Digital Effect

Press the [SELECT] Button on the Remote Controller repeatedly until the Digital Effect Indication is cleared.

- For other notes, see page 61.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MULTI/P-IN-P
●REC
A.DUB
REW
PLAY
FF
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL

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█Playback with Wipe Mode and Mix Mode

1 Press the [▶] Button.

2 Press the [SELECT] Button of the Remote Controller and select [WIPE] or [MIX].

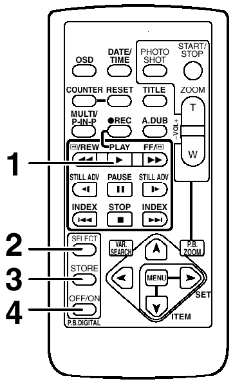
3 Press the [STORE] Button at the moment you want to save as a still picture.

- The last scene is stored in memory. The [WIPE] or [MIX] Indication changes to [WIPE] or [MIX].

4 Press the [OFF/ON] Button in the scene in which you want to use the Wipe or Mix effect.

- The scene changes as a result of the Wipe or Mix effect.

- The Wipe Function and Mix Function can be used only from the Remote Controller during playback.
- If the [OFF/ON] Button is pressed while Wipe Function or Mix is used, the effect will stop temporarily at that point. Pressing the [OFF/ON] Button again will bring back the effect.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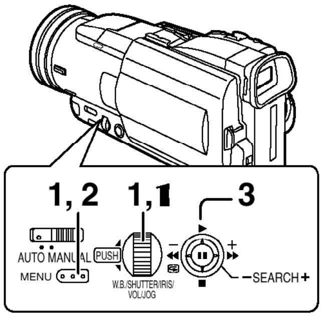
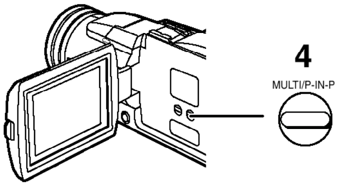
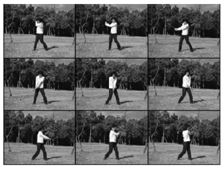
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL



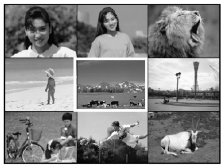


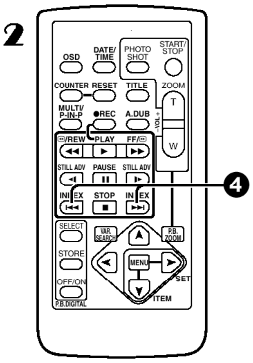
❶



❷

❸





■Playing Back with Multi-Picture Mode

Strobe Multi-Picture Mode [STROBE] ❶:
You can capture 9 consecutive still pictures from playback images.

Manual Multi-Picture Mode [MANUAL] ❷:
Selecting a desired still picture one at a time, you can capture 9 still pictures.

Index Multi-Picture Mode ([PHOTO], [SCENE]) ❸:
You can capture 9 screens of pictures to which index signals are attached.

After setting [VCR FUNCTIONS] >> [DIGITAL EFFECT] >> [EFFECT SELECT] >> [MULTI]...

1 Set [MULTI-PICTURES] >> [SCAN MODE] >> [STROBE] or [MANUAL] or [PHOTO] or [SCENE], whichever mode you prefer.

When [STROBE] is selected:

- Set the [SPEED] to a desired strobe speed.

[FAST]:	You can capture 9 consecutive still pictures within approximately 1 second
[NORMAL]:	You can capture 9 consecutive still pictures within approximately 1.5 seconds
[SLOW]:	You can capture 9 consecutive still pictures within approximately 2 seconds

- If you set [SWING] on the [MULTI-PICTURES] Sub-Menu to [ON], the intervals at which the 9 still pictures are taken are longer at the beginning and end than in the middle of the swing strobe period, and it is useful for analyzing swing motion, etc., in sports.

2 Exit the Menu by pressing the [MENU] Button.

3 Play back the tape.

- If you select Index mode, it is not necessary to play back the tape.

4 Press the [MULTI] Button.

- **If [STROBE] is selected:** 9 screens are automatically captured from the point at which the Button is pressed.
- **If [MANUAL] is selected:** press the [MULTI] Button at each scene you want to capture. When 9 screens are captured, the tape will stop.
- **If [PHOTO] or [SCENE] is selected:** From the point at which the Button is pressed, 9 screens of pictures to which index signals are attached are captured in the playback direction. After 9 screens are captured, the tape will stop, but, if there are 8 or less pictures to be captured, the tape will stop at its end.

Deleting All the Captured Multi-Pictures

While displaying the multi-pictures that have been captured, press the [MULTI] Button.

- If [MANUAL] has been selected, press [MULTI] Button after 9 screens are displayed.

To Display the Multi-Pictures again

Press the [MULTI] Button for 1 second or longer.

To Delete Multi-Pictures one by one (When Pictures have been captured in Manual Mode):

When the [MULTI] Button is pressed for 1 second or longer while the still pictures are displayed, the picture that was captured last is deleted. If you continue to press the Button, the pictures are deleted consecutively.

- After still pictures are deleted one at a time, they cannot be displayed again.

To Stop Capturing Pictures midway (When Pictures have been captured in Index Mode)

Press the [■] Button on the Remote Controller or push the Operation Lever towards [■].

To Search the tape position of a desired picture among the playback pictures displayed on 9 screens

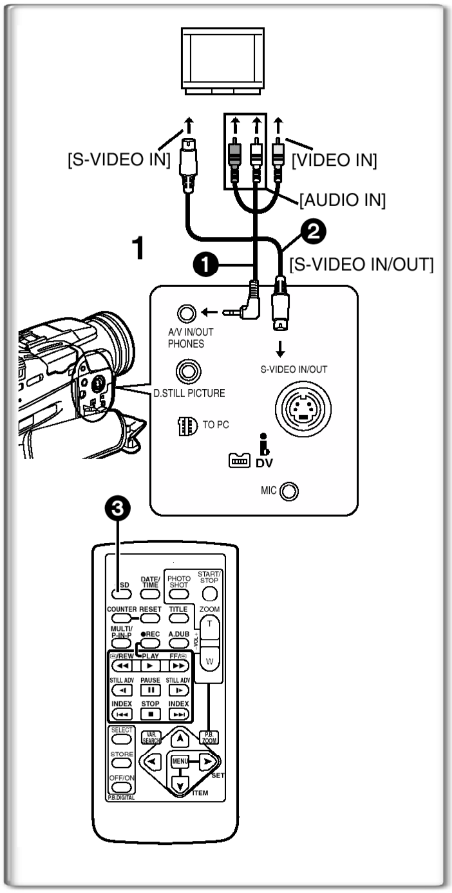
1 After displaying pictures in Multi-Picture Mode, rotate the [PUSH] Dial to select the image whose tape position you want to search.

- The selected picture is marked with a red frame.

2 Press the Index Button [⏮] or [⏭] ❹ on the Remote controller.

- Still picture playback takes place at the selected picture.

- For other notes, see page 61.


[S-VIDEO IN]
[VIDEO IN]
[AUDIO IN]
❷
1
❶
[S-VIDEO IN/OUT]
A/V IN/OUT PHONES
S-VIDEO IN/OUT
D.STILL PICTURE
TO PC
DV
MIC
❸
OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER RESET
TITLE
ZOOM
MULTI/P-IN-P
●REC
A.DUB
REW
PLAY
FF
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL

Playing Back on Your TV

By connecting your Palmcorder with your TV, the recorded scenes can be viewed on your TV screen.

- Before connecting them, turn off the power of both the Palmcorder and TV.

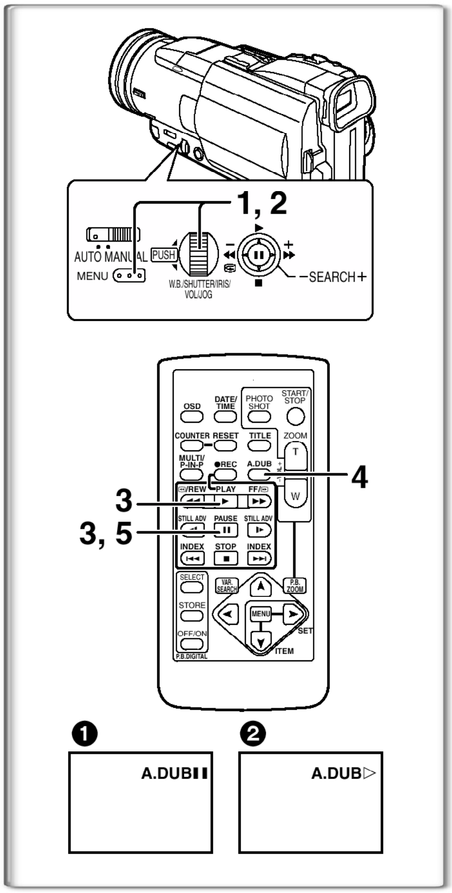
1 Connect the [A/V IN/OUT] Jack of the Palmcorder to the Video and Audio Input Jacks of the TV.

- Using the A/V Cable ❶ (supplied), make a connection with the TV. If the TV has an S-Video Jack, connect the S-Video Cable (not supplied) ❷, too.

Making the Indications Appear on the TV screen

Press the [OSD] Button ❸ on the Remote Controller.

- Be sure to select the proper input on your TV. (If necessary, consult your TV's operating instructions.)
- If you play back a Cassette recorded with copyright protection signals, the screen becomes blue or mosaic-like noise patterns appear.
- If you set [AV JACK] on the [AV IN/OUT SETUP] Sub-Menu to [IN/OUT], nothing will be shown on the TV screen except during playback.


1, 2
AUTO MANUAL
MENU
PUSH
W.B./SHUTTER/IRIS/VOL/JOG
SEARCH
OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER RESET
TITLE
ZOOM
MULTI/P-IN-P
●REC
A.DUB
4
REW
PLAY
FF
3
3, 5
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL
❶
❷
A.DUB❚❚
A.DUB▷

Audio Dubbing

You can add music or narration to the recorded Cassette.

- If you perform audio dubbing onto a tape that was recorded with [AUDIO-REC] on the [RECORDING SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu set to [16bit], the original sound is erased. (If you want to preserve the original sound, use the [12bit] Mode when recording.)
- Audio Dubbing cannot be performed onto recordings made in LP Mode. **(➜ 19)**

1 Set [VCR FUNCTIONS] >> [AV IN/OUT SETUP] >> [AV JACK] >> [IN/OUT].

2 And then select [A.DUB INPUT] >> [MIC] or [AV IN].

- Set to [AV IN] when external sound equipment is used, or set to [MIC] when an external or built-in microphone is used.

3 Press the [►] Button, and then press the [❚❚] Button at the point where you want to start dubbing.

4 Press the [A.DUB] Button on the Remote Controller.

- [A.DUB❚❚] Indication appears. ❶

5 To start Audio Dubbing, press the [❚❚] Button on the Remote Controller.

- [A.DUB▷] Indication appears. ❷

To Stop Audio Dubbing

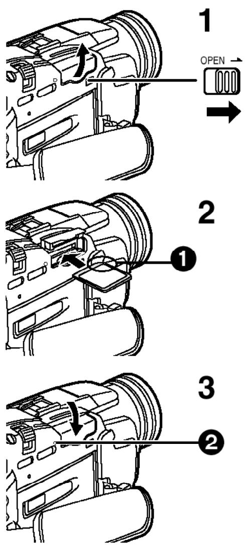
Press the [❚❚] Button on the Remote Controller.
The Palmcorder is in the Still Playback Mode again.

Playing Back the Sound Recorded with Audio Dubbing (For 12 bit Audio Recording)

Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [AUDIO] >> [ST2] or [MIX].

ST1:	Play back only the original sound.
ST2:	Play back only the sound added by Audio Dubbing
MIX:	Play back both the original sound and the sound added by Audio Dubbing simultaneously.

- For other notes, see page 62.



Special Features

Using a Memory Card

A Card can be used to record files or play back files.

- Use genuine SD Memory Card or MultiMediaCard only.

Inserting a Card

Before inserting a Card, be sure to turn off the Palmcorder.

1. **Slide the [OPEN] Lever to the right and open the Card Slot Cover.**
2. **While holding the Card with its cut corner facing right ❶, insert it into the Card Slot.**
3. **Close the Card Slot Cover.**

Taking out a Card

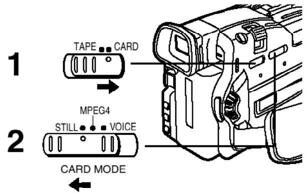
Open the Card Slot cover and push the side of the card in the middle and then pull it straight out to remove the card.

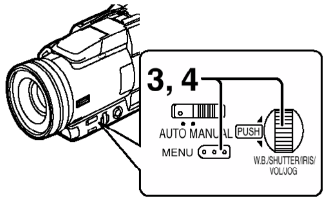
- After removing the card, close the Card Slot cover.

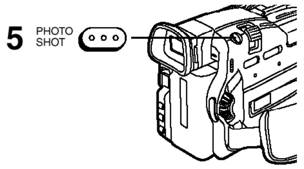
[ACCESS] Lamp

While the Palmcorder is accessing the Card (reading, recording, playback, erasing, moving of images), the [ACCESS] Lamp ❷ lights up.

- While the [ACCESS] Lamp is on, **never** attempt to: open the Card Slot Cover, pull out the Card, turn off the Palmcorder power, or switch the [TAPE/CARD] Selector. Such actions will damage the Card and cause the Palmcorder to malfunction.







P
F 7
640
PICTURE

Recording on the Memory Card

Three kinds of data can be recorded by selecting with the [STILL/MPEG4/VOICE] Selector. When recording still pictures, select [STILL] (Card PhotoShot), when recording moving pictures, select [MPEG4] (MPEG4 Recording), when recording voice, select [VOICE] (Voice Recorder Function).

- If the [TAPE/CARD] Selector is set to [CARD], the Palmcorder is automatically turned off when you leave it for about 5 minutes without performing any PhotoShot recording.
- When the [TAPE/CARD] Selector is set to [CARD], you cannot record to the Tape.

Card PhotoShot

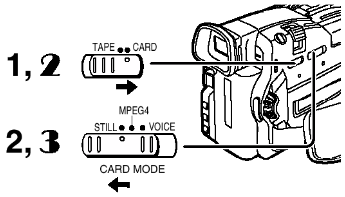
Still pictures can be recorded on the Memory Card from the Palmcorder lens as well as from scenes that have already been recorded on a cassette.

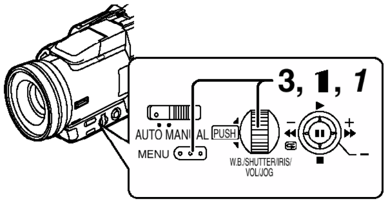
The size of images that are recorded using this Palmcorder is approximately 1,230,000 pixels. Recording of images with a size that is larger than a million pixels is called mega-pixel still-picture recording. Compared to images of normal recording, images that are created by mega-pixel still-picture recording can be printed out more clearly.

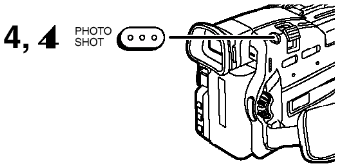
Recording from the Palmcorder Lens (Camera Mode)

1. **Slide the [TAPE/CARD] Selector to [CARD].**
2. **Slide the [STILL/MPEG4/VOICE] Selector to [STILL].**
3. **Set [CAMERA FUNCTIONS] >> [CARD SETUP] >> [PICTURE SIZE] >> [1280×960] or [640×480].**
4. **Set the [PICTURE QUALITY] to desired picture quality.**
5. **Press the [PHOTO SHOT] Button.**
   - The [PICTURE] Indication will light in red.

- Mega-pixel recording (when you select [1280×960] in step 3) is useful for taking clear pictures, but the following functions are disabled during mega-pixel recording.
  - Digital zooming **(➜ 22)**
  - Digital Effect functions **(➜ 27, 28)**
  - Title In/Creation **(➜ 41)**
- The power is automatically turned off after about 5 minutes when a card has been inserted.







P
F 7
640
PICTURE

■Card PhotoShot (continued)

Recording from a Cassette (VCR Mode)

1. **Slide the [TAPE/CARD] Selector to [CARD].**
2. **Slide the [STILL/MPEG4/VOICE] Selector to [STILL].**
3. **Set [VCR FUNCTIONS] >> [CARD SETUP] >> [PICTURE QUALITY] >> a desired picture quality.**
4. **Start playback and press the [PHOTO SHOT] Button at the scene you want to record.**
   - ●The size of the images input externally or recorded from a tape to the card becomes [640×480].
   - ●While the image is being recorded, it stays still for a few seconds.

Recording from other equipment

1. **Set [CAMERA FUNCTIONS] or [VCR FUNCTIONS] >> [CARD SETUP] >> [PICTURE QUALITY] >> a desired picture quality.**
2. **Slide the [TAPE/CARD] Selector to [CARD].**
3. **Slide the [STILL/MPEG4/VOICE] Selector to [STILL].**
4. **Input the picture from the other equipment then press the [PHOTO SHOT] Button at the desired scene.**

Selecting the quality of Card PhotoShot images

1. **Set [CAMERA FUNCTIONS] or [VCR FUNCTIONS] >> [CARD SETUP] >> [PICTURE QUALITY] >> a desired picture quality.**

Maximum number of images recordable on the supplied Card (8MB)

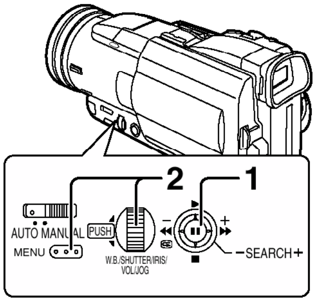
When the picture size is 1280×960:

[FINE] (high image quality):	approximately 8 pictures
[NORMAL] (Normal):	approximately 14 pictures
[ECONOMY] (low image quality):	approximately 20 pictures

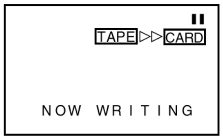
When the picture size is 640×480:

[FINE] (high image quality):	approximately 45 pictures
[NORMAL] (Normal):	approximately 95 pictures
[ECONOMY] (low image quality):	approximately 190 pictures

●For other notes, see page 62.



❶



■Automatically copying still pictures recorded on a cassette

The Palmcorder copies images automatically, referring to Photo Index signals.

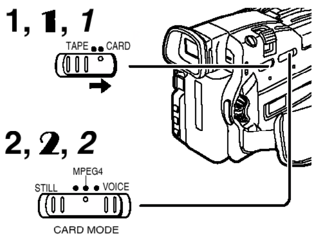
After setting the Palmcorder to the VCR Mode (➜ 29).....

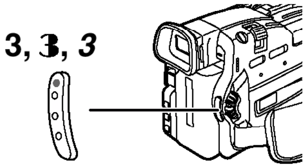
1. **Set the Palmcorder to Still Playback Mode just before the point where picture transfer is to commence.**
2. **Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [RECORD TO CARD] >> [YES].**
   - ●Search starts from the current Cassette position, and images with Photo Index signals are recorded onto the Card sequentially.
   - ●While copying, the Indication ❶ appears.

To Stop the Transfer of Images

Push the Operation Lever towards [■].

●For other notes, see page 62.





R:0h20m MPEG4

Recording the Moving Pictures (MPEG4)

You can record moving pictures for e-mailing on a Memory Card. The recorded data can be also played back on Windows Media Player.

Recording from the Palmcorder Lens (Camera Mode)

1 **Slide the [TAPE/CARD] Selector to [CARD].**
2 **Slide the [STILL/MPEG4/VOICE] Selector to [MPEG4].**
3 **Press the Recording Start/Stop Button.**
   - It takes 2 to 3 seconds to start recording.
   - During recording, the [MPEG4] Indication appears and is lit in red.
   - The maximum continuous recording times are:
     [FINE] (high image quality): 2 minutes
     [NORMAL] (normal image quality): 60 minutes
     The Palmcorder will automatically stop recording when the relevant time listed above has elapsed.
   - When Remaining Time Indication becomes [R:0h00m], [NO SPACE LEFT] Indication appears. Recording may not be started.

- The shutter speed is adjustable within the range of 1/30 to 1/500 while recording moving pictures (MPEG4).
- The picture size of the moving picture (MPEG4) is set to be [176×144].
- When attaching to email, we recommend the picture size to be less than 1MB (about 1 minute length).
- The following functions are disabled.
  - Digital Zoom **(➜ 22)**
  - Cinema Function **(➜ 23)**
  - Digital Effect Functions **(➜ 27)**
  - Title In/Creation **(➜ 41)**
  - Fade In/Out Function **(➜ 22)**

Recording from a Cassette (VCR Mode)

1 **Slide the [TAPE/CARD] Selector to [CARD].**
2 **Slide the [STILL/MPEG4/VOICE] Selector to [MPEG4].**
3 **Start playback and press the Recording Start/Stop Button at the desired scene.**

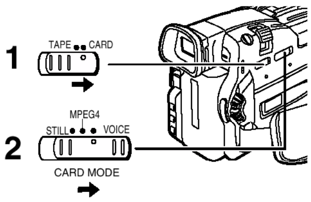
Recording from an other equipment (VCR Mode)

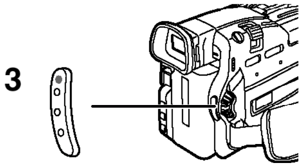
1 **Slide the [TAPE/CARD] Selector to [CARD].**
2 **Slide the [STILL/MPEG4/VOICE] Selector to [MPEG4].**
3 **Input the image from other equipment then press the Recording Start/Stop Button at the desired scene.**

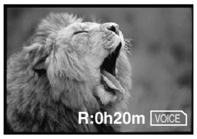
Maximum recording time on the supplied Card (8 MB)
[NORMAL]: approximately 6 minutes

- The video resolution of the camera is reduced when making an MPEG4 recording. This is done in order to optimize the image quality in MPEG4 recordings, and does not reflect a problem with the software or hardware.

- For other notes, see page 62.





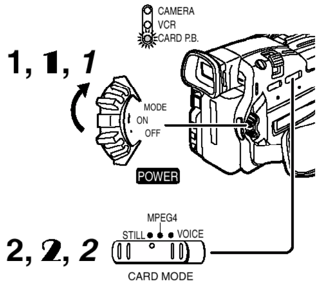


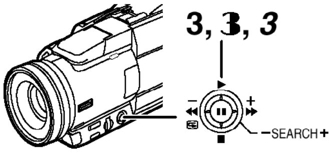
Recording Voice (Voice Recording Function)

You can record voice data on a memory card.

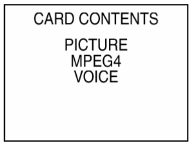
1 **Slide the [TAPE/CARD] Selector to [CARD].**
2 **Slide the [STILL/MPEG4/VOICE] Selector to [VOICE].**
3 **Press the Recording Start/Stop Button.**
   - Voice from built-in microphone is recorded.
   - It takes 2 to 3 seconds to start recording.
   - The recorded file is automatically locked (to prevent accidental erasure).
   - Voice from external microphone connected to the microphone jack can also be recorded.
   - During recording, the [VOICE] Indication appears and is lit in red.
   - If a card is not inserted, the Indication flashes in red.
   - When Remaining Time Indication becomes [R:0h00m], [NO SPACE LEFT] Indication appears. Recording may not be started.

- For other notes, see page 62.

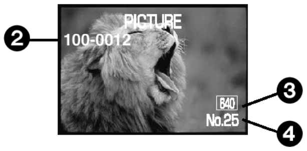


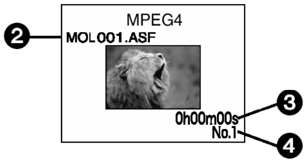


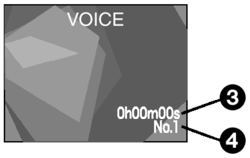
①


CARD CONTENTS

PICTURE
MPEG4
VOICE







Playing Back Files from the Memory Card

It allows you to play back files recorded on a Card.

- When you set the Palmcorder to Card Playback Mode, the Card Contents ① are displayed to inform you which kind(s) of data (still picture, moving picture and/or voice data) are recorded on the Card.

Playing back Still Pictures

1 Set the Palmcorder to Card Playback Mode.
- The [CARD P.B.] Lamp lights up.
- The still picture that was recorded last on the Card is displayed.

2 Set the [STILL/MPEG4/VOICE] Selector to [STILL].

3 Start Playback.

▶: Starts Slide Show (The [SLIDE▷] Indication is displayed)
▶▶: Playing back the next Picture
◀◀: Playing back the previous Picture
■: Stop the slide playback
❚❚: Pause slide playback

Playing back Moving Pictures (MPEG4)

1 Set the Palmcorder to Card Playback Mode.
- The [CARD P.B.] Lamp lights up.

2 Set the [STILL/MPEG4/VOICE] Selector to [MPEG4].

3 Start Playback.

▶: Playing back
■: Stop the playing back
❚❚: Pause playing back (This button does not pause playing back within 2 seconds of finishing playing back.)
▶▶: (Stop Mode)To the beginning of the next file.
(Playback Mode)To the beginning of the next file picture and start playback.
(Pause Mode)To the beginning of the next file and turns to Stop Mode.
◀◀: (Stop Mode)To the beginning of the previous playback file.
(Playback Mode)To the beginning of the playback file and start playback.
(Pause Mode)To the beginning of the file under playback and turns to Stop Mode.

- File is numbered in hexadecimal form.
- When the object is moving fast or zoom operation is performed, picture may appear to be still or a mosaic noise pattern appears, but this is not a malfunction.

Playing back Voice

1 Set the Palmcorder to Card Playback Mode.
- The [CARD P.B.] Lamp lights up.

2 Set the [STILL/MPEG4/VOICE] Selector to [VOICE].

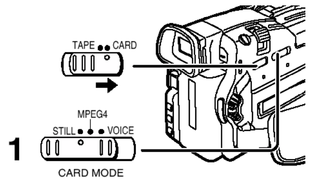
3 Start Playback

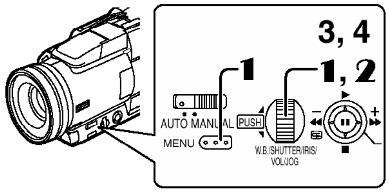
▶: Playing back
■: Stop the playing back
❚❚: Pause playing back (This button does not pause playing back within 2 seconds of finishing playing back).
▶▶: (Stop Mode) To the beginning of the next File.
(Playback Mode) To the beginning of the next File and start playback.
(Pause Mode) To the beginning of the next File and turns to Stop Mode.
◀◀: (Stop Mode) To the beginning of the previous playback File.
(Playback Mode) To the beginning of the playback File and start playback.
(Pause Mode) To the beginning of playback File and turns to Stop Mode.

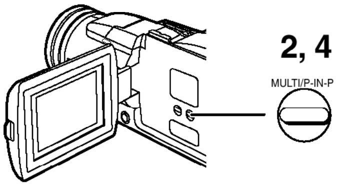
- If the Operation Lever is pushed towards [◀◀] or [▶▶] for 1 or more seconds, it becomes 10× playback and if pushed for 7 or more seconds, it becomes 60× playback. Releasing the Operation Lever brings back to normal playback.

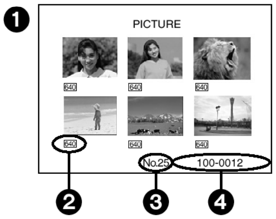
② Folder-File Number (When the picture or MPEG4 is played back only)
③ Picture Size (When the picture is played back)
Playback time (When MPEG4 data or Voice data is played back)
④ File Number

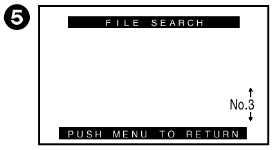
To adjust the volume (Only Playing back MPEG4 and Voice)
- During playback, hold down the [PUSH] Dial until the volume indication appears and rotate it to adjust the volume. **(➜ 29)**


TAPE CARD
MPEG4
STILL VOICE
1
CARD MODE


3, 4
1
1, 2
AUTO MANUAL
PUSH
MENU
W.B./SHUTTER/IRIS/
VOL/JOG


2, 4
MULTI/P-IN-P


①
PICTURE
640
No.25
100-0012
②
③
④


⑤
FILE SEARCH
No.3
PUSH MENU TO RETURN

To Select a Desired File and Play it Back

After setting the Palmcorder to the Card Playback Mode (➜ 38).....

1. **Slide the [STILL/MPEG4/VOICE] Selector to desired type of data.**
2. **Press the [MULTI] Button.**
   - The files recorded on the Memory Card are displayed in Multi-Picture Mode. ①
3. **Rotate the [PUSH] Dial and select a desired file.**
   - The selected file is marked with a red frame.
   - When 7 or more files have been recorded, rotate the [PUSH] Dial to display the next file. The Operation Lever (towards [◀◀] or [▶▶])can be used instead of the [PUSH] Dial.
4. **Press either the [PUSH] Dial or the [MULTI] Button.**
   - The selected file is shown on the entire screen.

② File Size (When [STILL] is selected at Step 1)
③ File Number
④ Folder-File Number (When [STILL] or [MPEG4] is selected at Step 1)

Using File Search Mode

1. **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [FILE SEARCH] >> [YES].**
   - The file search screen ⑤ appears.
2. **Rotate the [PUSH] Dial to select the desired number of the file and then press it.**
   - The selected number's file appears.

- The same process can be performed using the short-cut menu **(➜ 18)**.
- For other notes, see page 63.

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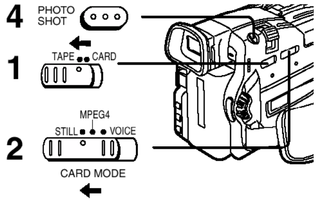
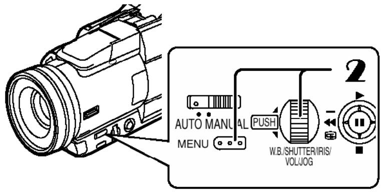

4
PHOTO SHOT
1
TAPE CARD
MPEG4
STILL VOICE
2
CARD MODE


2
AUTO MANUAL
PUSH
MENU
W.B./SHUTTER/IRIS/
VOL/JOG

①
REC
NOW RECORDING

Copying pictures on a Memory Card to a Cassette

After setting the Palmcorder to the Card Playback Mode (➜ 38).....

To Copy One Picture

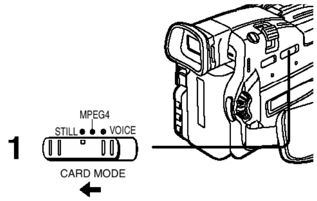
1. **Slide the [TAPE/CARD] Selector to [TAPE].**
2. **Slide the [STILL/MPEG4/VOICE] Selector to [STILL].**
3. **Display a desired picture.**
   - Please refer to "To select a Desired File and Play it Back".
4. **Press the [PHOTO SHOT] Button.**
   - It takes approximately 7 seconds to copy a still picture to the Cassette.
   - During the copying, the indication ① appears.

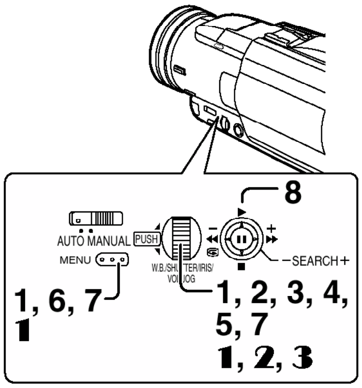
To Copy All the Pictures

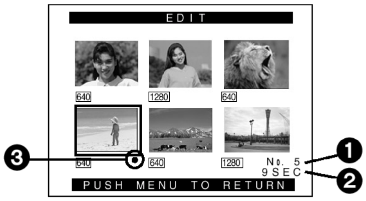
1. **Display the first picture.**
   - If a picture other than the first one is displayed, only the subsequent pictures will be copied.
2. **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [RECORD TO TAPE] >> [YES].**
   - It takes approximately 7–11 seconds for each picture to be copied to the cassette. To stop the copying midway, press the [■] Button.
   - During the copying, the Indication ① appears.

- When recording to tape, select the tape position before recording. The picture will be recorded to the tape position when the [PHOTO SHOT] button is pressed at step 4.
- When picture with a size other than [640×480] are copied on the cassette, their pictures quality will deteriorate slightly.
- Picture size recorded on tape is [640×480]. (Cannot save as mega-pixel still picture)
- Moving Picture (MPEG4) and Voice data cannot be recorded from a card to tape.
- When recording the Card Images on a Tape, a PhotoShot index signal is automatically recorded with a picture.
- Even if you edit the Slide Show, it is not applied to the order in copying the pictures.

- For other notes, see page 62.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~







Slide Show

The recorded still pictures in the Card can be played back like a Slide Show. You can set up a Slide Show or change the content.

To Select Pictures to Play Back in Your Slide Show

1. **After setting the [STILL/MPEG4/VOICE] Switch to [STILL], set [CARD FUNCTIONS] >> [CARD EDITING] >> [SLIDE SHOW] >> [YES].**
   - Slide Show editing screen appears.
2. **Set [EDIT] >> [YES].**
3. **Rotate the [PUSH] Dial to select a picture and then press the dial.**
4. **Rotate the [PUSH] Dial to select playback order and then press the dial.**
   - This step is skipped when there are no pictures that has set for the Slide Show.
5. **Rotate the [PUSH] Dial to adjust the playback time and then press the dial.**
   - The Playback Order Indication ❶ and the Playback Time (Second) Indication ❷ appear.
   - The [●] Indication ❸ is displayed below pictures that have been selected for the Slide Show.
   - To select the next picture, repeat the Steps 3 to 5 above.
6. **Press the [MENU] Button to end the setup.**
7. **After setting [SLIDE SHOW] >> [PRESET], press the [MENU] Button.**
8. **Push the Operation Lever towards [▶].**
   - The [M.SLIDE▷] Indication is displayed. ❹

To Play Back All the Pictures Continuously

After setting the [SLIDE SHOW] to [ALL], push the Operation Lever towards [▶].

- The [SLIDE▷] Indication is displayed. ❺
- All pictures are played back for approximately 5 seconds each, from the first to the last recorded picture, and playback then stops.

To Pause the Slide Show

Push the Operation Lever towards [❚❚].

- The [(M.) SLIDE❚❚] Indication is displayed. ❻

To Stop the Slide Show

Push the Operation Lever towards [■].

To Verify the Selected Picture

Set [CARD FUNCTIONS] >> [CARD EDITING] >> [SLIDE SHOW] >> [YES] >> [VERIFY] >> [YES].

- Only the selected pictures are displayed in Multi-Picture Mode in the Playback order.

To Delete the Selected Pictures

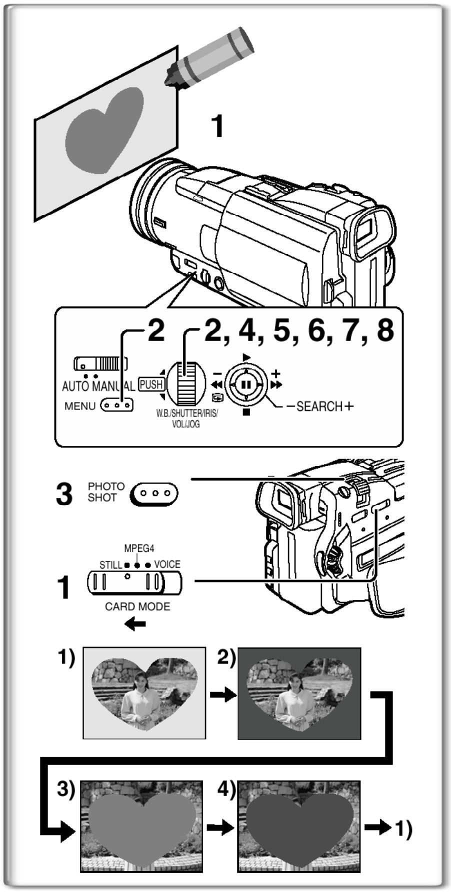
1. **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [SLIDE SHOW] >> [YES].**
2. **Set [DELETE] >> [YES].**
3. **Select the picture you want to delete and press the [PUSH] Dial.**

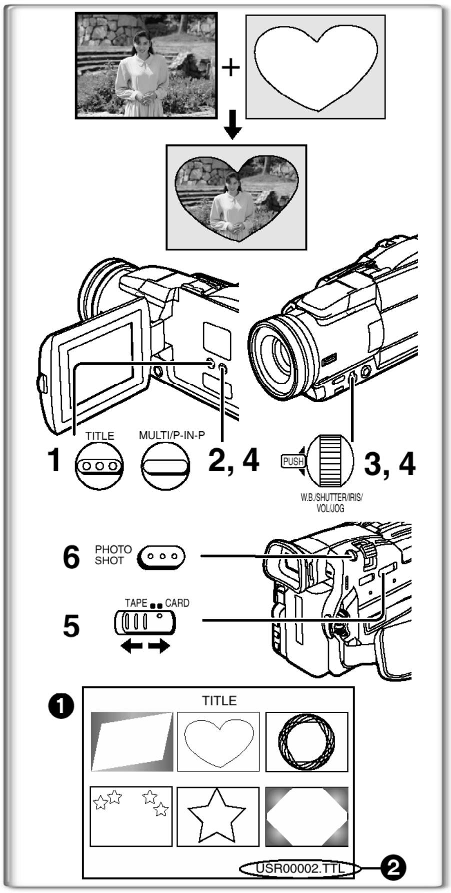
To Reset the Slide Show Setup

Set [CARD FUNCTIONS] >> [CARD EDITING] >> [SLIDE SHOW] >> [YES] >> [RESET] >> [YES] >> [YES].

- Slide Show settings are reset.

- For other notes, see page 63.





Creating a Title

You can create a title and record on a Memory Card.

1 **Camera Mode:**
Slide the [STILL/MPEG4/VOICE] Selector to [STILL] and point the camera at the image you want to use for creating a title.
VCR Mode:
Search for the image you want to use for creating a title and set the Palmcorder to Still Playback Mode.

2 **Set [CARD SETUP] >> [CREATE TITLE] >> [YES].**

3 **Press the [PHOTO SHOT] Button.**
- The title is stored.
- To perform PhotoShot again, select [RETURN].

4 **Rotate the [PUSH] Dial to select [LUMINANCE] and press it.**

5 **Rotate the [PUSH] Dial to adjust the title contrast and then press it.**

6 **Rotate the [PUSH] Dial to select [COLOR] and then press it.**

7 **Rotate the [PUSH] Dial to select desired color and press it.**

8 **Select [RECORD] and then press the [PUSH] Dial.**

Selecting Colors

If you make color selection by rotating the [PUSH] Dial when creating a title, you can change the color as follows.

1) Original Color (The color of the captured image)
   - Title in the original color in which the dark portion (blackish portion) of the captured image is missing.

2) Preset colors (black, blue, green, cyan, red, pink, yellow, and white)
   - Title in a preset color in which the dark portion (blackish portion) of the captured image is missing.

3) Original color (the color of the captured image)
   - Title in the original color in which the bright portion (whitish portion) of the captured image is missing

4) Preset colors (black, blue, green, cyan, red, pink, yellow, and white)
   - Title in a preset color in which the bright portion (whitish portion) of the captured image is missing.

Inserting a Title

You can select one of your original titles and display it. (It can be displayed in Camera Mode, VCR Mode, and Card Playback Mode.)
But when the [STILL/MPEG4/VOICE] Selector Switch is set to [MPEG4] or [VOICE], adding a Title is not possible.

1 **Press the [TITLE] Button.**
- The title that was created last is displayed.

2 **Press [MULTI] Button.**
- A list of titles is displayed. ❶

3 **Rotate the [PUSH] Dial to select a desired title.**
- The selected title is marked with a red frame.

4 **Press the [PUSH] Dial or press the [MULTI] Button.**
- The selected title is displayed.

5 **Using the [TAPE/CARD] Selector, select the recording target.**

Camera Mode:	TAPE or CARD
VCR Mode:	CARD
Card Playback Mode:	TAPE

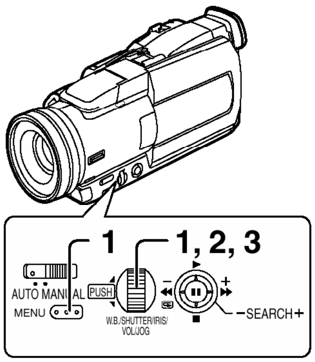
6 **Press the [PHOTO SHOT] Button.**
- A still picture is recorded under the inserted title.
- If you record on a Cassette in Normal Recording Mode, set the [TAPE/CARD] Selector to [TAPE] and press the Recording Start/Stop Button.

❷ File Name

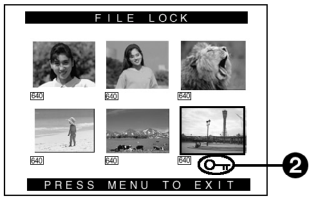
Clearing a Title Display

Press the [TITLE] Button.
- The [ACCESS] Indication appears until the titles are displayed completely. Perform the Recording after the Indication disappears.

- For other notes, see page 63.



❶



Protecting the Files on a Memory Card from Accidental Erasure (File Lock)

Precious files recorded on a Memory Card can be locked to prevent accidental erasure. (Even if files are locked, the files will be deleted when the Memory Card is formatted.)

After setting the Palmcorder to the Card Playback Mode (➜ 38).....

1. **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [FILE LOCK] >> [YES].**
2. **Rotate the [PUSH] Dial to select [PICTURE] or [TITLE], and then press it.**
   - The [FILE LOCK] Menu ❶ is displayed.
3. **Rotate the [PUSH] Dial to select the file to be locked, and then press it.**
   - The [O‑π] Indication ❷ is attached to the selected file.
   - Files recorded by Voice Recording Function are automatically locked (to prevent accidental erasure).
   - Press the [PUSH] Dial again to cancel.

- The Lock Setting carried out by this Palmcorder is only effective for this Palmcorder.
- The same setting can be performed using the short-cut menu **(➜ 18)**.

About the Write Protection Switch of the SD Memory Card

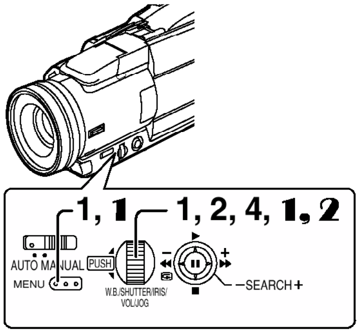
The SD Memory Card has a write protection switch on it. If the switch is moved to the [LOCK] side, you cannot write to or format the Card. If it is moved back, you can.

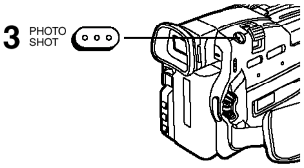
~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Deleting the Files Recorded on a Memory Card

Using the Palmcorder, you can delete the picture files recorded on a Memory Card. **After the file is deleted, it cannot be restored.**
At first, slide the [STILL/MPEG4/VOICE] Selector to select the type of data to be erased.

After setting the Palmcorder to the Card Playback Mode (➜ 38).....





To Select and Delete File(s) by selection

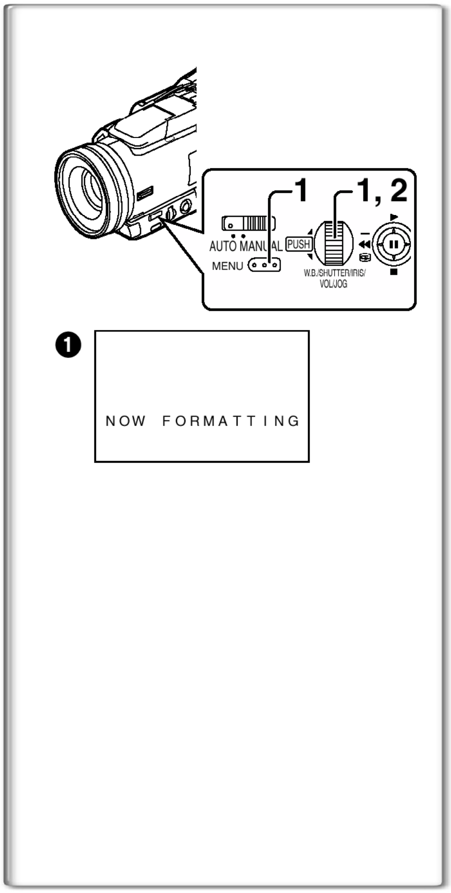
1. **Set [CARD FUNCTIONS] >> [DELETE CARD FILE] >> [DELETE FILE BY SELECTION] or [DELETE TITLE BY SELECTION].**
2. **Rotate the [PUSH] Dial to select the file that you want to delete, and then press it.**
   - The selected file flashes.
   - To delete more than 1 file, repeat this step.
3. **Press the [PHOTO SHOT] Button.**
   - A verification message appears.
4. **Rotate the [PUSH] Dial to select [YES] and then press it.**
   - The selected file is deleted from the Memory Card.

To Delete all Files

1. **Set [CARD FUNCTIONS] >> [DELETE CARD FILE] >> [DELETE ALL FILES].**
   - A verification message appears.
2. **Rotate the [PUSH] Dial to select [YES] and then press it.**
   - All the files of the selected Card Mode [STILL], [MPEG4] or [VOICE] are erased.
   - A locked file cannot be deleted.

- When you delete a Voice File, be sure to cancel the Lock setting before deleting.
- Do not delete a Voice File recorded with this Palmcorder using other devices.
- The same setting can be performed using the short-cut menu **(➜ 18)**.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Formatting a Memory Card



If a Memory Card becomes unreadable by the Palmcorder, formatting it may make it reusable. Formatting will delete all the data recorded on a Memory Card.

After setting the Palmcorder to the Card Playback Mode (➜ 38).....

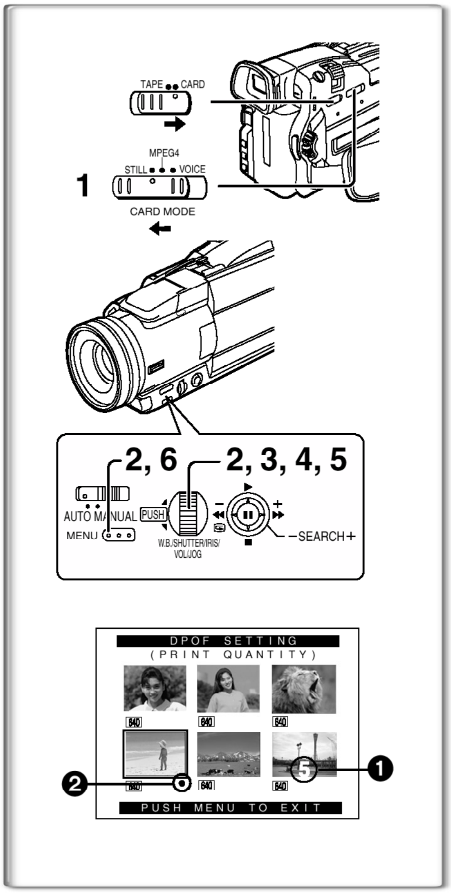
1 **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [CARD FORMAT] >> [YES].**

2 **Select [YES] and press the [PUSH] Dial.**

- During formatting the [NOW FORMATTING] Indication ❶ appears.
- When the formatting is completed, the screen becomes white.
- Even if files are locked, the files will be deleted when the Memory Card is formatted.
- It may not be possible to use a Card which was formatted using this Palmcorder on another unit. In this case, format the Card on the unit which will be using the Card. Take steps to ensure that valuable files are stored on the personal computer, etc. as well before proceeding.
- A Card formatted with other equipment (like a Personal Computer) might be unusable or might take more time for recording. We recommend that you use this equipment to format it.

- For other notes, see page 62.

DPOF Setting



You can select the images to be printed, the number of prints, and other print-related information (DPOF setting) on a Memory Card. “DPOF” stands for Digital Print Order Format, and since printing data can be added to images on the Memory Card, the Memory Card can be used with any system that provides DPOF.

After setting the Palmcorder to the Card Playback Mode (➜ 38).....

1 **Slide the [STILL/MPEG4/VOICE] Selector to [STILL].**

2 **Set [CARD FUNCTIONS] >> [CARD EDITING] >> [DPOF SETTING] >> [YES].**

3 **Rotate the [PUSH] Dial to select [VARIABLE] and then press it.**

4 **Rotate the [PUSH] Dial to select the picture and then press it.**

5 **Rotate the [PUSH] Dial to set the number of prints ❶ and then press it.**

- The framed images will be set to DPOF and the [●] ❷ will be displayed. The [●] mark indicates pictures for which 1 or more prints have been set.
- When printing one each of all the pictures, select [ALL 1] ; if not all the pictures are to be printed, select [ALL 0].

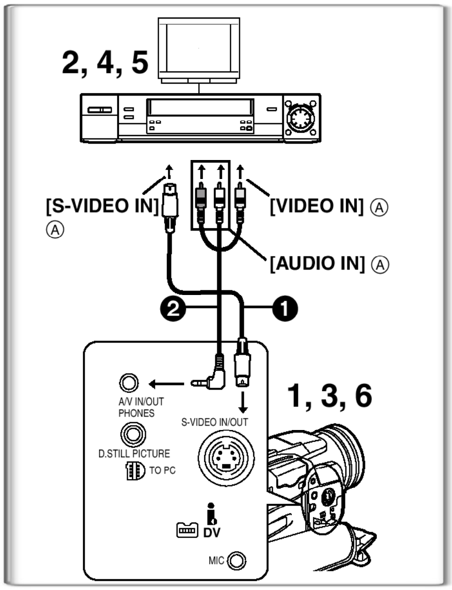
6 **Repeat Step 4–5 to set other pictures, and press the [MENU] Button when the setting is completed.**

To Verify DPOF Setting

Select [VERIFY] in Step 2 above. The pictures for which 1 or more prints are set in DPOF are played back continuously.

- DPOF Print mark is based on DPOF (Digital Print Order Format).
- The same setting can be performed using the short-cut menu **(➜ 18)**.

- For other notes, see page 63.


2, 4, 5
[S-VIDEO IN] Ⓐ
[VIDEO IN] Ⓐ
[AUDIO IN] Ⓐ
❷
❶
A/V IN/OUT PHONES
S-VIDEO IN/OUT
D.STILL PICTURE
TO PC
DV
MIC
1, 3, 6

Copying your DV Cassette to an S-VHS or VHS Cassette (Dubbing)

After connecting the Palmcorder and the S-Video, Video and Audio Input Jacks Ⓐ of the VCR as illustrated on the left, start the following procedures.

- Be sure to press the [OSD] Button on the Remote Controller before copying so that no Indications are left visible. Otherwise, the displayed tape counter and Function indications are also copied.

[Palmcorder]

1 Insert the recorded Cassette.

[VCR]

2 Insert a blank Cassette with an erasure prevention tab.

- If various settings (such as external input, tape speed, etc.) are required, please refer to the operating instructions of your VCR.

[Palmcorder]

3 Press the [▶] Button to start playback.

[VCR]

4 Start recording.

5 Press the Pause or Stop Button to stop recording.

[Palmcorder]

6 Press the [■] Button to stop playback.

❶ S-Video Cable (not supplied) ❷ A/V Cable (supplied)

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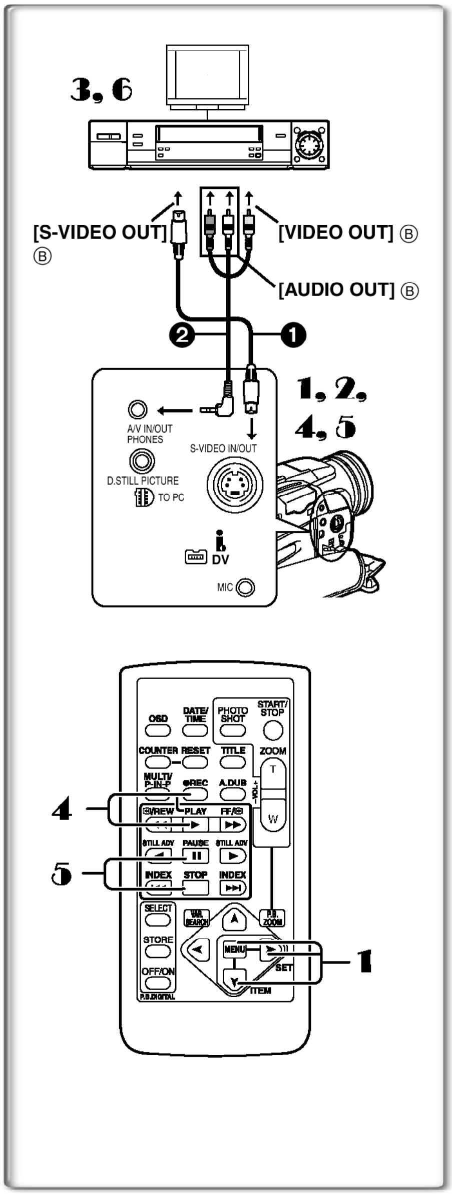
3, 6
[S-VIDEO OUT] Ⓑ
[VIDEO OUT] Ⓑ
[AUDIO OUT] Ⓑ
❷
❶
A/V IN/OUT PHONES
S-VIDEO IN/OUT
D.STILL PICTURE
TO PC
DV
MIC
1, 2, 4, 5
OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER
RESET
TITLE
ZOOM
MULTI/P-IN-P
●REC
A.DUB
T
W
REW
PLAY
FF
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
ITEM
P.B.DIGITAL
4
5
1

Copying an S-VHS or VHS Cassette to your DV Cassette

After connecting the Palmcorder and the S-Video, Video, Audio Output Jacks Ⓑ of the other equipment as illustrated on the left, start the following procedures.

- You need the Remote Controller.

[Palmcorder]

1 Set [VCR FUNCTIONS] >> [AV IN/OUT SETUP] >> [AV JACK] >> [IN/OUT].

2 Insert a blank Cassette with an erasure prevention tab.

[Other Equipment]

3 Insert a recorded Cassette and start playback.

[Palmcorder]

4 While pressing the [REC] Button, press the [PLAY] Button. (Both buttons are located on the Remote Controller.)

5 Press the [❚❚] Button or [■] Button to stop recording.

[Other Equipment]

6 Press the Stop Button to stop playback.

❶ S-Video Cable (not supplied) ❷ A/V Cable (supplied)

……

CAUTION:

Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

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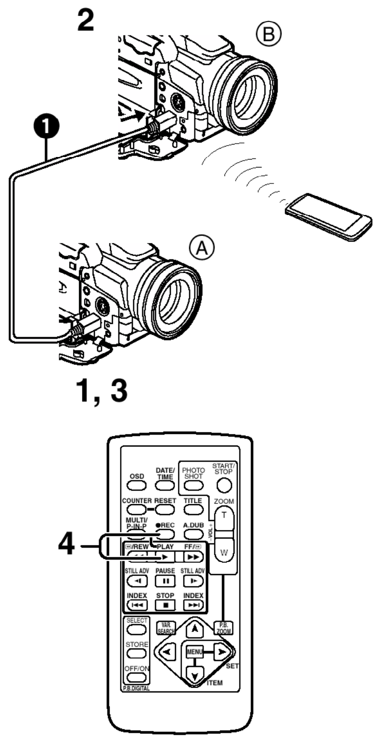

2
Ⓑ
❶
Ⓐ
1, 3
4
OSD
DATE/TIME
PHOTO SHOT
START/STOP
COUNTER
RESET
TITLE
ZOOM
MULTI/P-IN-P
●REC
A.DUB
T
W
◄◄/REW
PLAY
FF/►►
STILL ADV
PAUSE
STILL ADV
INDEX
STOP
INDEX
SELECT
VAR. SEARCH
P.B. ZOOM
STORE
MENU
SET
OFF/ON
P.B.DIGITAL
ITEM

Using your Palmcorder with Digital Video Equipment (Dubbing)

By connecting this Palmcorder with other digital video equipment (such as another Palmcorder of the same format/model) that has a DV input/output terminal (i.LINK) using a DV Interface cable PV-DDC9 (optional) ❶, high quality image and sounds can be dubbed in the digital mode.

[Playback Unit Ⓐ]

1 Insert the recorded Cassette and set the Palmcorder to the VCR Mode.

[Recording Unit Ⓑ]

2 Insert a Cassette to be used for dubbing and set the Palmcorder to the VCR mode.

[Playback Unit Ⓐ]

3 Press the [▶] Button to start playback.

[Recording Unit Ⓑ]

4 While pressing the [REC] Button, press the [PLAY] Button. (Both Buttons are located on the Remote Controller.)
- Recording starts.

Stopping Dubbing

Press the [■] Button on the recording unit first, and then press the [■] Button on the playback unit to stop dubbing.

CAUTION:

Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

- For other notes, see page 62.

█Analog-Digital Conversion

When the Palmcorder is connected with other digital video equipment through its DV Terminal, the analog format pictures which have been input from other external equipment can be output to the digital video equipment through the DV Terminal.

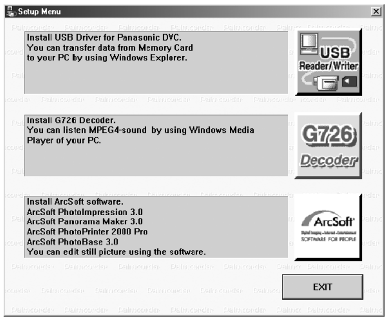
- To DV-output analog video signals sent from other equipment, set [DV OUT] on the [AV IN/OUT SETUP] Sub-Menu to [ON]. (Normally, keep the [DV OUT] set to [OFF]. If it is set to [ON], the quality of the image may be disturbed.)

CAUTION:

Unauthorized exchanging and/or copying of copyrighted recordings may be copyright infringement.

- Please refer to “Recording to a Card from other equipment” **(➜ 62)**, regarding the recording to a Card.

3 ❶



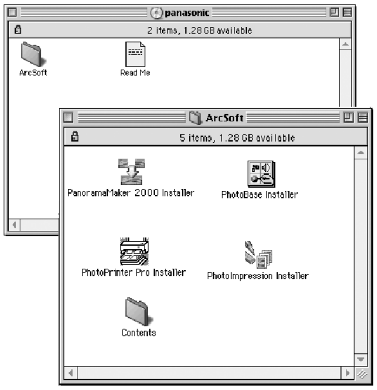
Install USB Driver for Panasonic DVC.
You can transfer data from Memory Card
to your PC by using Windows Explorer.

Install G726 Decoder.
You can listen MPEG4-sound by using Windows Media
Player of your PC.

Install ArcSoft software.
ArcSoft PhotoImpression 3.0
ArcSoft Panorama Maker 3.0
ArcSoft PhotoPrinter 2000 Pro
ArcSoft PhotoBase 3.0
You can edit still picture using the software.

3 ❷

4, 5


panasonic
2 items, 1.28 GB available
ArcSoft
Read Me
ArcSoft
5 items, 1.28 GB available
PanoramaMaker 2000 Installer
PhotoBase Installer
PhotoPrinter Pro Installer
PhotoImpression Installer
Contents

Using the Software with a Computer

An image stored on the DV Cassette can be transferred to your Personal Computer.

■System Requirements for ArcSoft

- CD-ROM drive (for installation)

(for ArcSoft Software)

For Windows®

- IBM PC/AT or compatible
- Intel Pentium II Processor: 266 MHz or more
- Windows® XP, Windows® Me, Windows® 98, Windows® 95, Windows®2000 Professional
- RAM: 64 MB or more
- 300 MB minimum available hard disk space
- High color (16 bit) or more
- CD-ROM drive (for installation)
- Mouse or other pointing device

For Macintosh

- Mac OS 8.6 – 9.1
- RAM: 64 MB or more
- 180 MB minimum available hard disk space
- High color (16 bit) or more

(USB Driver For SD Memory Card)

For Windows®

- IBM PC/AT or compatible
- Intel Pentium II Processor: 266 MHz or more
- Microsoft Windows® XP, Windows® Me, Windows® 98SE, Windows®2000 Professional pre-installed PC with USB port
- Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Macintosh is a registered trademark of Apple Computer, Inc.
- All product/brand names are trademarks or registered trademarks of the respective holders
- Please refer to page 48, regarding the system requirements of USB Driver.

■Software Installation (Windows)

1 **Turn on Computer and start up Windows.**

2 **Insert supplied CD-ROM into the CD-ROM drive.**
- [Setup Menu] ❶ appears.

3 **Select the software to be installed from [Setup Menu].**
- **USB Driver (➜ 48):**
  Software for USB Driver allows you to transfer images directly off of the memory card into the computer
  (Please refer to page 48 to install the driver of the USB Driver.)
- **G726 Decoder (➜ 49):**
  Software for G726 Decoder allows you to listen to MPEG4 sound with Windows Media Player.
- **ArcSoft Software (➜ 47):**
  PhotoImpression 3.0, Photo Base 3.0, Panorama Maker 3.0 and PhotoPrinter 2000 Pro are included.

4 **Follow the instructions on the computer screen until the installation is complete.**
- Setup window will disappear when the installation is complete.

Note:

If a window does not appear automatically, click the “Start” Button on your desktop and then click “Run”. When the “Run” Box is open, type in “D:\InstMenu.exe” and click “OK”. (“D” applies when the CD-ROM drive is drive D.)

■Software Installation (Macintosh)

1 **Turn on Computer and start up Macintosh.**

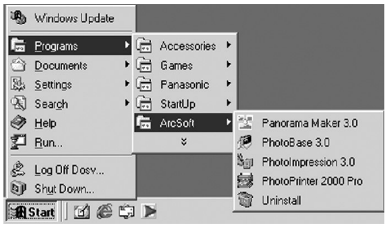
2 **Insert supplied CD-ROM into the CD-ROM drive.**

3 **Double click the expression of a CD-ROM ❷ that appeared.**

4 **Double click the software to be installed from [ArcSoft].**

5 **Follow the instructions on the computer screen until the installation is complete.**

1


Windows Update
Programs
Documents
Settings
Search
Help
Run...
Log Off Dosv...
Shut Down...
Start
Accessories
Games
Panasonic
StartUp
ArcSoft
Panorama Maker 3.0
PhotoBase 3.0
PhotoImpression 3.0
PhotoPrinter 2000 Pro
Uninstall

❶

panorama Maker 3.0
Start
Open
Edit
Save
Export
Print
FullScreen
Panorama

❷

❸

❹

PhotoPrinter
layout
Landscape Photos
get photo
crop photo
edit photo
frame photo
edit text
new project
Photo Size: 8.0" x 5.3"
adjust size
print setup
copies
print

ArcSoft Software

There are 4 types of image editing software in the ArcSoft Software package.

Before you begin...

1 Open [Start] >> [Programs] >> [ArcSoft] >> [Panorama Maker 3.0] or [PhotoImpression 3.0] or [PhotoBase 3.0] or [PhotoPrinter 2000 Pro].

❶ Panorama Maker 3.0 (Windows, Mac)

- Easy-to-use photo-stitching program seamlessly combines multiple photos into a single panoramic picture.

❷ PhotoImpression 3.0 (Windows, Mac)

- Easy-to-use photo editing program to edit, enhance, retouch or add special effects to any image. Also offers creative solutions for making greeting cards and calendars.

❸ PhotoBase 3.0 (Windows), PhotoBase 2.0 (Mac)

- Create albums of image, video, audio, and other electronic files for easy viewing, retrieval, and management.

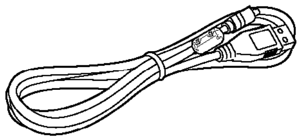
❹ PhotoPrinter 2000 Pro (Windows), PhotoPrinter Pro (Mac)

- Program to layout images in multiple sizes quickly and effortlessly to create a collage or photo album, all on one page.

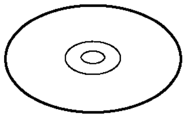
For Information on ArcSoft Software:

TEL:	1-510-440-9901
FAX:	1-510-440-1270
Web Site:	www.arcsoft.com
E-mail:	support@arcsoft.com

Refer to Help information about application operations and other Error messages.

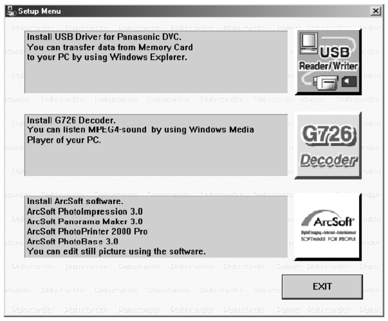


VFA0366



LSFT0489

1 ❶

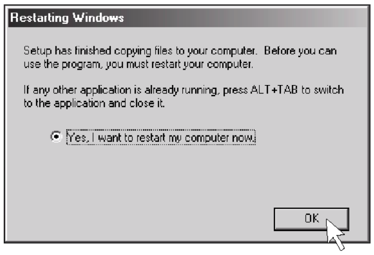


Install USB Driver for Panasonic DVC.
You can transfer data from Memory Card
to your PC by using Windows Explorer.

Install G726 Decoder.
You can listen MPEG4-sound by using Windows Media
Player of your PC.

Install ArcSoft software.
ArcSoft PhotoImpression 3.0
ArcSoft Panorama Maker 3.0
ArcSoft PhotoPrinter 2000 Pro
ArcSoft PhotoBase 3.0
You can edit still picture using the software.

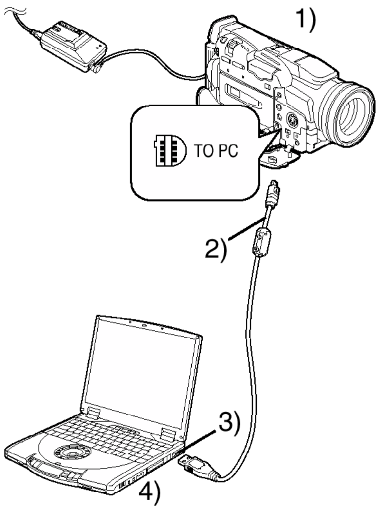
4



Setup has finished copying files to your computer. Before you can use the program, you must restart your computer.

If any other application is already running, press ALT+TAB to switch to the application and close it.

● Yes, I want to restart my computer now.



Using the Supplied USB Connection Kit

■Operating environment

USB Driver can be installed in a PC/AT compatible personal computer which can run Microsoft Windows® XP, Windows® Me, Windows® 98SE, Windows®2000 Professional.

- **USB Driver**

For Windows®
- IBM PC/AT or compatible
- Intel Pentium Ⅱ Processor: 300 MHz or higher CPU recommended
- Microsoft Windows® XP, Windows® Me, Windows® 98SE, Windows®2000 Professional pre-installed PC with USB port
- Video card that supports16 bit color at 800×600 monitor resolution
- RAM: 64 MB or more
- 2 MB minimum available hard disk space
- Disk drive: CD-ROM drive
- Ports: USB Terminal
- Other requirements: Mouse or other pointing device

* * *

Installing USB Driver

In order for USB Driver to be installed, the hard disk must have at least 2 MB of free space. Before proceeding with installation, check out the amount of free space on the hard disk.

1 **Insert supplied CD-ROM into the CD-ROM drive.**
   - [Setup Menu] ❶ appears.

2 **Select the software to be installed from [Setup Menu].**
   - The set up program starts running.

3 **Finish installation by following the on-screen instructions.**
   - Carefully read the license agreement on the window, and if you agree click [Yes]. Software is not installed if [No] is clicked.

4 **Click [OK] when the [Restarting Windows] Dialog appears.**
   - Reboot the computer to finish installing USB driver.
   - Installation continues after the computer reboots if you selected additional software.

- If you no longer need the driver, see page 54.
- Update the driver after upgrading the OS.

* * *

Connecting Computer and Palmcorder

Install USB Driver (above) before connecting.
Before making these connections, turn off all devices which are to be connected.

1 **Install the supplied USB Driver. (above)**

2 **Insert memory card into Palmcorder, then set card playback mode.**

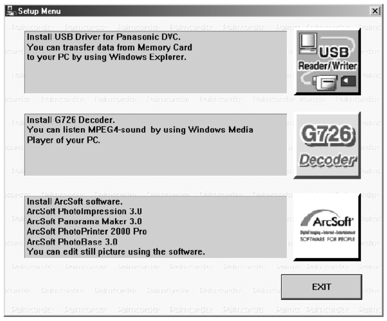
3 **Use auxiliary USB Connection Cable to connect.**
   - PC connecting mode.

1) Palmcorder
2) USB Connection Cable
3) USB terminal
4) Personal computer (not supplied)

- After making the connections, turn the connected equipment on.
- Appropriate driver to recognize Palmcorder is automatically installed by Windows Plug'n Play when connected first time.
- When using the USB Connection Kit, use of the AC Adaptor is recommended to use as the power supply of the Palmcorder.

- After the USB Driver is installed and USB Connection Cable is connected to the Palmcorder, open [My computer] or [Windows Explorer] to check the drive is displayed as a removable disk drive (only when card is inserted into the Palmcorder). It enables you to operate like a floppy disk drive, and you can use the same drag and drop or copy methods.

1 ❶

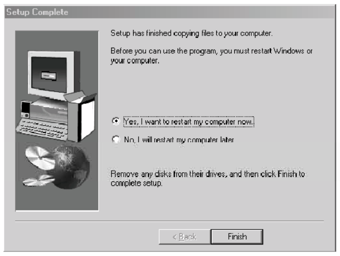

Setup Menu

Install USB Driver for Panasonic DVC.
You can transfer data from Memory Card
to your PC by using Windows Explorer.

Install G726 Decoder.
You can listen MPEG4-sound by using Windows Media
Player of your PC.

Install ArcSoft software.
ArcSoft PhotoImpression 3.0
ArcSoft Panorama Maker 3.0
ArcSoft PhotoPrinter 2000 Pro
ArcSoft PhotoBase 3.0
You can edit still picture using the software.

3


Setup Complete

Setup has finished copying files to your computer.

Before you can use the program, you must restart Windows or your computer.

● Yes, I want to restart my computer now.

○ No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to complete setup.

Using the G726 Decoder

G726 Decoder allows you to listen to MPEG4 sound with Windows Media Player. Install it from enclosed CD-ROM.

In order for the G726 Decoder to be installed, the hard disk must have at least 16 MB of free space. Before proceeding with installation, check out the amount of free space on the hard disk.

For Windows®

- Microsoft Windows® XP, Windows® Me, Windows® 98SE, Windows®2000 Professional pre-installed PC. Also, DirectX 6,7,8 random, Direct X Media 6 or WMP 6-6.4, WMP7 must be correctly installed.
- Video card that supports16 bit color at 800×600 monitor resolution
- RAM: 32 MB or more
- 16 MB minimum available hard disk space
- Microsoft® and Windows® are registered trademarks of Microsoft in the United States and other countries.
- Macintosh is a registered trademark of Apple Computer, Inc.
- © 2001. ArcSoft, the ArcSoft logo, ArcSoft PhotoImpression, ArcSoft PhotoPrinter Pro, ArcSoft Photo Base and ArcSoft Panorama Maker are trademarks of ArcSoft, Inc.
- All product/brand names are trademarks or registered trademarks of the respective holders.
- Intel® Pentium® is a registered trademark.
- i.LINK and "i" are trademarks.
- IBM is a registered trademark of IBM Company.
- SD is a trademark.
- Disk drive: CD-ROM drive
- Ports: USB Terminal
- Other requirements: Mouse

~~~~~~~~~~~~~~~~~~~~~~~~~~~~

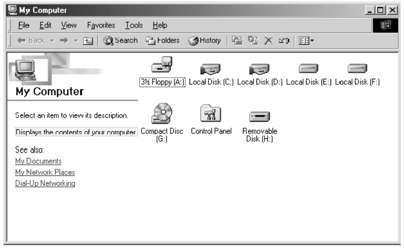
Installing the G726 Decoder

1 **Insert supplied CD-ROM into the CD-ROM drive.**
  - [Setup Menu] ❶ appears.

2 **Select the software to be installed from [Setup Menu].**
  - The set up program starts up.
  - Quit all Windows applications.

3 **Install it by following the instructions on the screen.**
  - Carefully read the license agreement on the [Software License Agreement] window, and if you agree click [Yes]. Software is not installed if [No] is clicked.

4 **Click [Finish] when the [Setup Complete] Dialog appears.**
  - Finish installing the G726 Decoder by restarting the computer.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~


My Computer
File Edit View Favorites Tools Help
Back
Search
Folders
History
My Computer
3½ Floppy (A:)
Local Disk (C:)
Local Disk (D:)
Local Disk (E:)
Local Disk (F:)
Compact Disc (G:)
Control Panel
Removable Disk (H:)
See also:
My Documents
My Network Places
Dial-Up Networking

Select an item to view its description.

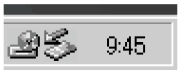
Displays the contents of your computer

Check if Palmcorder is correctly recognized

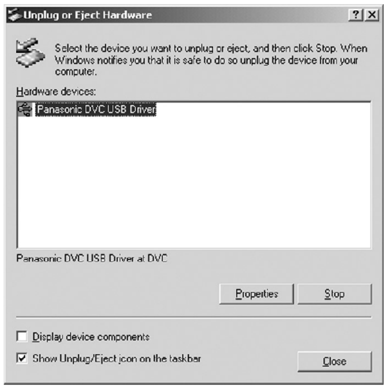
1 Verify [Removable Disk] icon is added in [My Computer].
- Drive name (E: etc.) may vary depending on your computer.

- If Palmcorder is connected to the computer before the driver is installed, or you are using the driver that came with Windows, then it may not be able to correctly recognize Palmcorder.
- If it doesn't function properly, check to see if the driver was correctly installed, and update the driver if necessary.

1



2


Unplug or Eject Hardware
Hardware devices:
Panasonic DVC USB Driver
Properties
Stop
Close

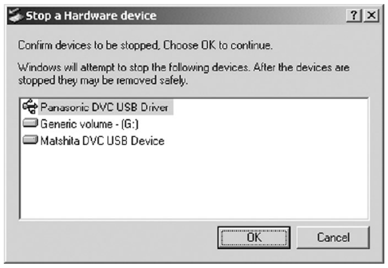
Select the device you want to unplug or eject, and then click Stop. When Windows notifies you that it is safe to do so unplug the device from your computer.

Panasonic DVC USB Driver at DVC

☐ Display device components

☑ Show Unplug/Eject icon on the taskbar

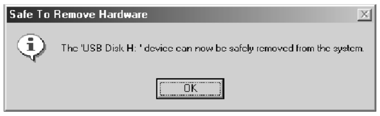
3


Stop a Hardware device
Panasonic DVC USB Driver
Generic volume - (G:)
Matshita DVC USB Device
OK
Cancel

Confirm devices to be stopped, Choose OK to continue.

Windows will attempt to stop the following devices. After the devices are stopped they may be removed safely.

4


Safe To Remove Hardware
OK

The 'USB Disk H: ' device can now be safely removed from the system.

To disconnect USB cable safely

If USB cable is disconnected while computer is on, error message may appear. In such a case click [OK] and close the dialog box. By following the steps below you can disconnect the cable safely.

1 Double click the icon in task tray.
- Hardware disconnect dialog appears.

2 Select [Panasonic DVC USB Driver] and click [Stop].

3 Verify [Panasonic DVC USB Driver] is selected and click [OK].

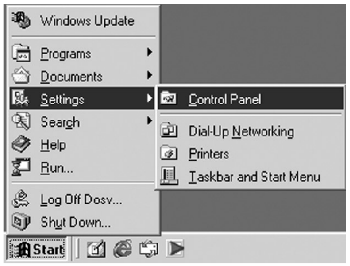
4 Click [OK].
- You can safely disconnect the cable.

- Some OS, such as Windows® 98SE, may not show the icon indicating that you may safely disconnect in task tray. (OS may be set not to show) Make sure Palmcorder's [ACCESS] Lamp is off and disconnect the cable.

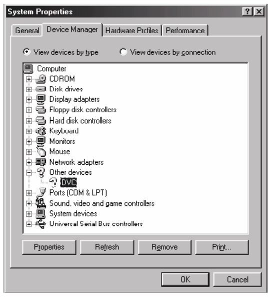
CAUTION:

If you disconnect the USB Cable while the [ACCESS] Lamp is on, it may damage the Card data.

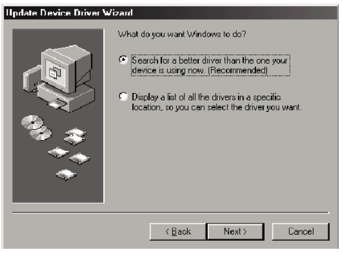
1


Windows Update
Programs
Documents
Settings
Search
Help
Run...
Log Off Dosv...
Shut Down...
Start
Control Panel
Dial-Up Networking
Printers
Taskbar and Start Menu

1


System Properties
General
Device Manager
Hardware Profiles
Performance
View devices by type
View devices by connection
Computer
CDROM
Disk drives
Display adapters
Floppy disk controllers
Hard disk controllers
Keyboard
Monitors
Mouse
Network adapters
Other devices
DVC
Ports (COM & LPT)
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Properties
Refresh
Remove
Print...
OK
Cancel

3

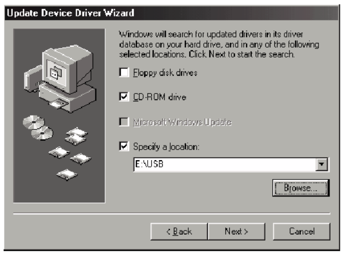

Update Device Driver Wizard
< Back
Next >
Cancel

What do you want Windows to do?

● Search for a better driver than the one your device is using now. (Recommended)

○ Display a list of all the drivers in a specific location, so you can select the driver you want.

4


Update Device Driver Wizard
Browse...
< Back
Next >
Cancel

Windows will search for updated drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.

☐ Floppy disk drives

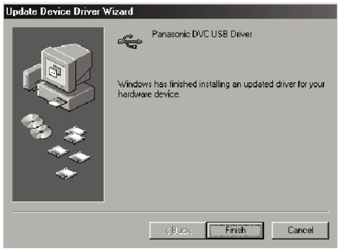
☑ CD-ROM drive

☐ Microsoft Windows Update

☑ Specify a location:

E:\USB

5


Update Device Driver Wizard
< Back
Finish
Cancel

Panasonic DVC USB Driver

Windows has finished installing an updated driver for your hardware device.

Verifying and updating driver

Windows 98 SE

Verify and update driver while Palmcorder is connected to the computer.

■Verifying driver (Palmcorder must be connected to computer)

1 Select [Start] >> [Settings] >> [Control Panel], double click [System] select device driver tab, verify [Panasonic DVC USB Driver] and [Panasonic DVC Port Driver] are displayed in [Universal Serial Bus controllers] of [Device Manager].

- If [DVC] is displayed in [Other devices] of [Device Manager] tab, we recommend updating the driver by following the steps below:

■Updating driver

1 Select [DVC] in [Other devices] of [Device Manager] and click [Properties].

2 Select [Driver] and click [Update Driver].

3 Select [Search for a better driver than the one your device is using now (Recommended)] and click [Next].

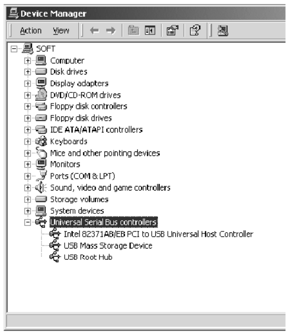
4 Select [Specify a location], refer to the location of the driver and the driver file name, click [Next].

- Location of the driver (folder) varies depending on the computer used. (e.g.: C:\\WINDOWS\INF\MTUSDV98.INF)

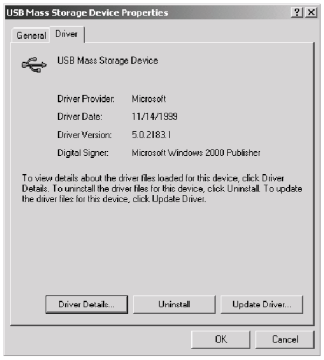
5 When the dialog to finish appears, click [Finish].

- Driver update is complete.

1, 1


Device Manager
Action View
SOFT
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Ports (COM & LPT)
Sound, video and game controllers
Storage volumes
System devices
Universal Serial Bus controllers
Intel 82371AB/EB PCI to USB Universal Host Controller
USB Mass Storage Device
USB Root Hub

2

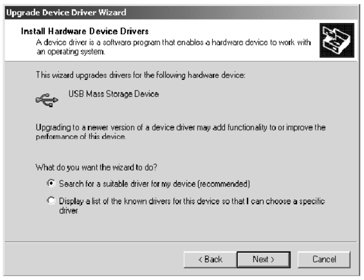

USB Mass Storage Device Properties
General
Driver
Driver Details...
Uninstall
Update Driver...
OK
Cancel

USB Mass Storage Device

Driver Provider: Microsoft
Driver Date: 11/14/1999
Driver Version: 5.0.2183.1
Digital Signer: Microsoft Windows 2000 Publisher

To view details about the driver files loaded for this device, click Driver Details. To uninstall the driver files for this device, click Uninstall. To update the driver files for this device, click Update Driver.

3


Upgrade Device Driver Wizard
< Back
Next >
Cancel

Install Hardware Device Drivers

A device driver is a software program that enables a hardware device to work with an operating system.

This wizard upgrades drivers for the following hardware device:

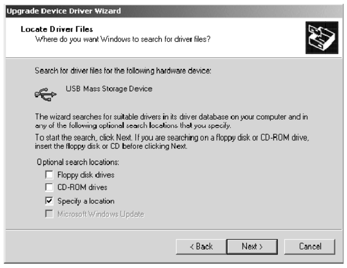
USB Mass Storage Device

Upgrading to a newer version of a device driver may add functionality to or improve the performance of this device.

What do you want the wizard to do?

● Search for a suitable driver for my device (recommended)
○ Display a list of the known drivers for this device so that I can choose a specific driver

4


Upgrade Device Driver Wizard
< Back
Next >
Cancel

Locate Driver Files

Where do you want Windows to search for driver files?

Search for driver files for the following hardware device:

USB Mass Storage Device

The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.

To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.

Optional search locations:

☐ Floppy disk drives
☐ CD-ROM drives
☑ Specify a location
☐ Microsoft Windows Update

Windows 2000Professional

■Verify driver
(Palmcorder must be connected to computer)

1 **Select [Start] >> [Settings] >> [Control Panel], double click [System] Hardware tab, Device Manager. Verify [USB Mass Storage Device] and [USB Root Hub] in [Universal Serial Bus Controllers] of [Device Manager] of [Hardware].**

- If [USB Mass Storage Device] is shown in [Universal Serial Bus controllers] of [Device Manager] tab, we recommend updating the driver as described below to Panasonic DVC USB Driver.

■Updating driver

1 **Click [USB Mass Storage Device] of [Device Manager].**

2 **Select [Driver] and click [Update Driver]**

3 **Select [Search for a suitable driver for my device (recommended)] and click [Next].**

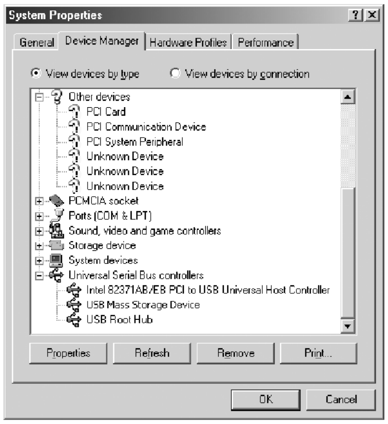
4 **Select [Specify a location], refer to the location of the driver and the driver file name, click [Next].**

- Location of the driver (folder) varies depending on the computer used. (e.g.: C:\\WINDOWS\INF\MTUSDV2K.INF)

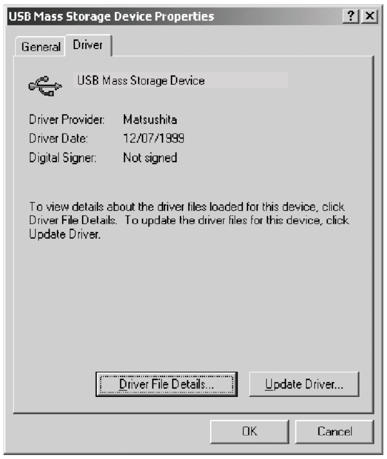
5 **When the dialog to finish appears, click [Finish].**

- Driver update is complete.

1, 1


System Properties
General
Device Manager
Hardware Profiles
Performance
● View devices by type
○ View devices by connection
Other devices
PCI Card
PCI Communication Device
PCI System Peripheral
Unknown Device
Unknown Device
Unknown Device
PCMCIA socket
Ports (COM & LPT)
Sound, video and game controllers
Storage device
System devices
Universal Serial Bus controllers
Intel 82371AB/EB PCI to USB Universal Host Controller
USB Mass Storage Device
USB Root Hub
Properties
Refresh
Remove
Print...
OK
Cancel

2

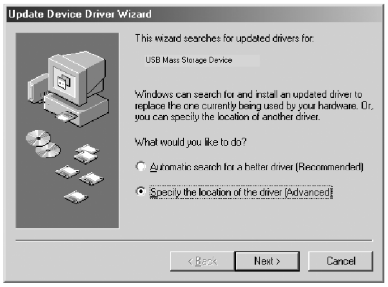

USB Mass Storage Device Properties
General
Driver
Driver File Details...
Update Driver...
OK
Cancel

USB Mass Storage Device

Driver Provider: Matsushita
Driver Date: 12/07/1999
Digital Signer: Not signed

To view details about the driver files loaded for this device, click Driver File Details. To update the driver files for this device, click Update Driver.

3


Update Device Driver Wizard
< Back
Next >
Cancel

This wizard searches for updated drivers for:

USB Mass Storage Device

Windows can search for and install an updated driver to replace the one currently being used by your hardware. Or, you can specify the location of another driver.

What would you like to do?

○ Automatic search for a better driver (Recommended)

● Specify the location of the driver (Advanced)

Windows Me

Verify and update driver while Palmcorder is connected to the computer.

■Verifying driver (Palmcorder must be connected to computer)

1 **Select [Start] >> [Settings] >> [Control Panel], double click [System], Device Manager tab and verify [Panasonic DVC USB Driver] is displayed in [Universal Serial Bus controllers] of [Device Manager].**
- If [USB Mass Storage Device] is displayed in [Universal Serial Bus controllers] of [Device Manager] tab, we recommend updating the driver by following the steps below.

■Updating driver

1 **Select [USB Mass Storage Device] in [Universal Serial Bus controllers] of [Device Manager] and click [Properties].**

2 **Select [Driver] and click [Update Driver].**

3 **Select [Specify the location of the driver (Advanced)] and click [Next].**

4 **Select [Specify a location] in [Search for a better driver than the one your device is using now. (Recommended)], refer to the location of the driver and the driver file name, click [Next].**
- Location of the driver (folder) varies depending on the computer used. (e.g.: C:\\WINDOWS\INF\MTUSDVME.INF)

5 **When the dialog to finish appears, click [Finish].**
- Driver update is complete.

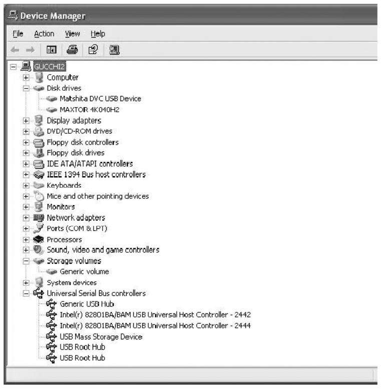
Windows XP

Verify the driver while Palmcorder is connected to the computer.

Verifying driver (Palmcorder must be connected to computer)

1 Select [Start] >> [Control Panel] >> [Performance and Maintenance], double click [System], Hardware tab, Device Manager.

1


Device Manager
File
Action
View
Help
GUCCHI2
Computer
Disk drives
Matshita DVC USB Device
MAXTOR 4K040H2
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
IDE ATA/ATAPI controllers
IEEE 1394 Bus host controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Ports (COM & LPT)
Processors
Sound, video and game controllers
Storage volumes
Generic volume
System devices
Universal Serial Bus controllers
Generic USB Hub
Intel(r) 82801BA/BAM USB Universal Host Controller - 2442
Intel(r) 82801BA/BAM USB Universal Host Controller - 2444
USB Mass Storage Device
USB Root Hub
USB Root Hub

Please make sure that you can see the following drivers that come with Windows.

1. **Matsushita DVC USB Device**
2. **Generic Volume**
3. **USB Mass Storage Device**

~~~~~~~~~~~~~~~~~~~~~~~~~~

If you no longer need software or driver (uninstall)

Uninstalling Application Software

1 Click [Start] >> [Settings] >> [Control Panel].
2 Double Click [Add/Remove Programs] in [Control Panel].
3 Select the application software you want to remove.

Uninstalling Application Software (Windows XP)

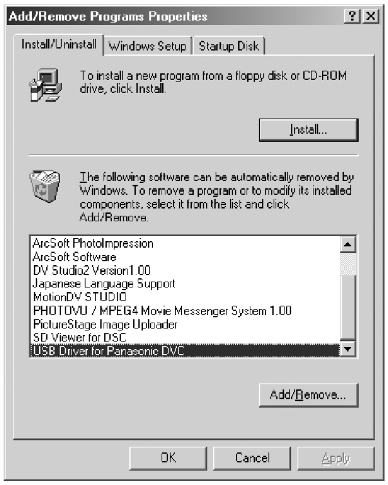
1 Click [Start] >> [Control Panel] >> [Performance and Maintenance].
2 Click [Add or Remove Programs] in [Performance and Maintenance].
3 Select the application software you want to remove.

Uninstalling ArcSoft Software

1 Select [ArcSoft Software].

Uninstalling USB driver

1 **Select [USB Driver for Panasonic DVC].**


Add/Remove Programs Properties
Install/Uninstall
Windows Setup
Startup Disk
Install...
Add/Remove...
OK
Cancel
Apply

To install a new program from a floppy disk or CD-ROM drive, click Install.

The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove.

ArcSoft PhotoImpression
ArcSoft Software
DV Studio2 Version1.00
Japanese Language Support
MotionDV STUDIO
PHOTOVU / MPEG4 Movie Messenger System 1.00
PictureStage Image Uploader
SD Viewer for DSC
USB Driver for Panasonic DVC

Uninstalling steps may vary depending on the OS.
Please refer to the user manual of your OS.
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Notes

- Do not disconnect USB Connection Cable while the operation light of Palmcorder is on. It may freeze the software or destroy the data in transfer. Please refer to the user manual of Palmcorder.
- We recommend using AC adaptor as the power source for the Palmcorder when using USB Connection Kit. Data may be lost If the battery power is lost while transferring.
- G726 may not recognize memory card files not created by Palmcorder.
- Do not delete the folders in memory card such as picture folder, DPOF folder, title folder etc. Memory card may not be recognized if deleted.

* * *

About the SD Memory Card and MultiMediaCard

SD Memory Card

The SD Memory Card (supplied) is virtually the same size as a MultiMediaCard. It is an external memory card that is available in larger capacities. It has a write protect switch to prevent data writing and card formatting, as well as a copyright protection function.

- SD Logo is a trademark.

MultiMediaCard

The MultiMediaCard is a compact, lightweight and removable external memory card.

- All other company and product names in the operating instructions are trademarks or registered trademarks of their respective corporations.

Files recorded on a SD Memory Card or MultiMediaCard

It may not be possible to play back the files on this Palmcorder recorded on and created by other equipment or vice versa. For this reason, check the compatibility of the equipment in advance.

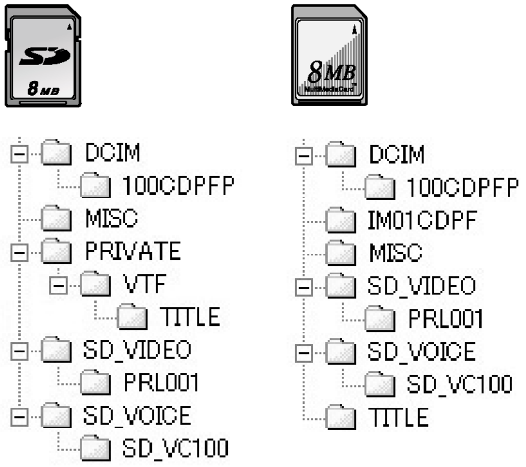
About the compatibility of the card files

Data files recorded on “SD Memory Card”s or “MultiMediaCard”s by this Palmcorder conform with DCF (Design Rules for Camera Files Systems universal standard) established by JEITA (Japan Electronics and Information Technology Industries Association).

- If you attempt to play back files recorded with this Palmcorder in other equipment or to play back files recorded with other equipment in this Palmcorder, you may not be able to play them back. Please check the compatibility with other equipment in advance.

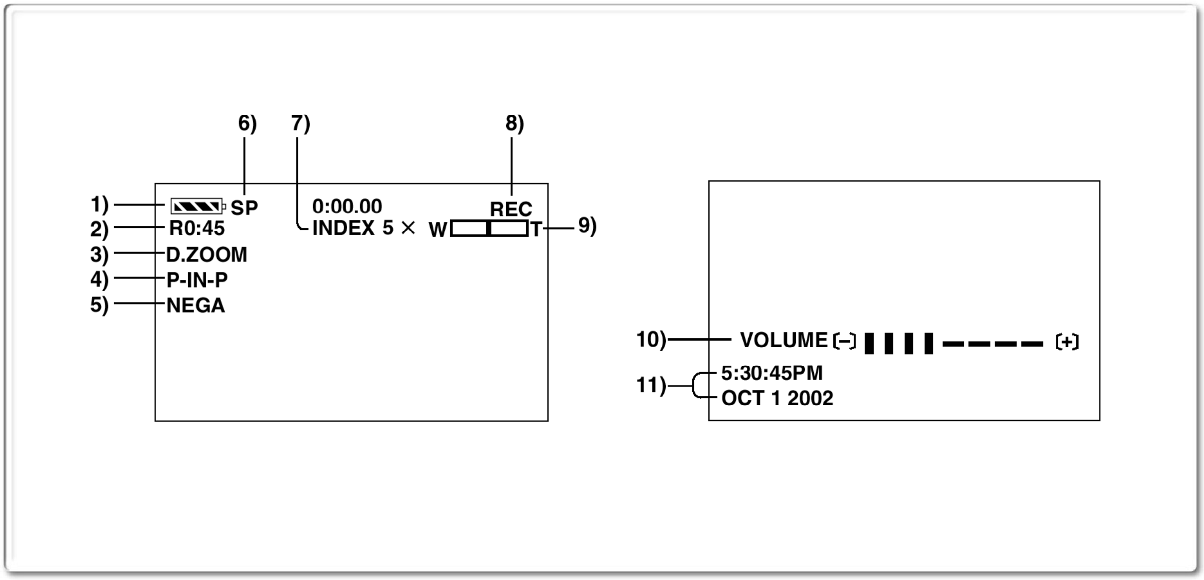
About the folder structure when using the Memory Card in a personal computer

- When a Card with data recorded on it is inserted into a personal computer, folders will be displayed as in the figure below.



[100CDPFP]:	The images (Imga0001.jpg, etc.) in this folder are recorded in the JPEG format.
[MISC]:	Files in which DPOF Data has been set to the image are in this.
[TITLE]:	This contains the data of the original titles (Usr00001.jpg, Usr00001.ttl, etc.).
[PRL001]:	MPEG4 moving picture is recorded in ASF format (MOL00001.ASF etc.). It can be played back with Windows Media Player (ver.6.4 and later). Because of their small size, these files are well suited for transmitting data through a telephone lines etc.. To play back moving picture with Windows Media Player, select a file and double click. Necessary software is automatically downloaded and starts playing back. (Internet connection is required).

- [DCIM], [IM01CDPF], [PRIVATE], [VTF], [SD_VIDEO], [SD_VOICE] etc. are necessary items in the folder structure. They have nothing to do with actual operations.
- In the Card Mode, the Palmcorder automatically saves file numbers (Imga0001.jpg, etc.) along with the images. The file numbers are recorded with each image as consecutive numbers.
- In the [SD_VC100] folder, the Voice data (Mob001.vml etc.) is recorded. It, however, cannot be played back on a Personal Computer.
- The [SD_VOICE] folder and the Voice files in the folder are set as hidden. Depending on the settings of your personal computer, this hidden folder and these hidden files might not appear in Windows Explorer or the “My Computer” screen.
- The memory capacity indicated on the SD Card label corresponds to the total card capacity. Some of this capacity is used to protect and manage the copyright data, and not all capacity is available as a conventional memory for a Palmcorder, Personal Computer or others. Capacity that can be used as conventional memory:
  8MB Card: about 6,800,000 bytes



Others

Indications

Various functions and Palmcorder conditions are displayed on the screen.

1) **Remaining Battery Power [▰▰▰▰]**
   - When the battery power becomes low, the indication changes. When the battery is discharged completely, the [▰] ([ ]) Indication flashes.
   - When you are using the AC Adaptor, the [▰▰▰▰] Indication may appear, however , this has no meaning in this case.

2) **Remaining Tape Time [R0:00]**
   - Remaining tape time is indicated in minutes. When it reaches less than 3 minutes, the indication starts flashing.

3) **Digital Zoom [D.ZOOM] (➜ 22)**
   Playback Zoom [ZOOM 5×] (➜ 32)

4) **Digital Effects 1**

●MULTI:	Multi-Picture Mode **(➜ 28, 33)**
●P-IN-P:	Picture-in-Picture Mode **(➜ 28)**
●WIPE:	Wipe Mode **(➜ 27, 32)**
●MIX:	Mix Mode **(➜ 27, 32)**
●STROBE:	Strobe Mode **(➜ 27, 32)**
●MAGICPIX:	Gain-up Mode **(➜ 27)**
●TRAIL:	Trailing Effect Mode **(➜ 27, 32)**
●MOSAIC:	Mosaic Mode **(➜ 27, 32)**
●MIRROR:	Mirror Mode **(➜ 27, 32)**

5) **Digital Effects 2**

●NEGA:	Negative Mode **(➜ 27, 32)**
●SEPIA:	Sepia Mode **(➜ 27, 32)**
●MONO:	Black & White Mode **(➜ 27, 32)**
●SOLARI:	Solarization Mode **(➜ 27, 32)**

6) **Recording Speed Selector**

●SP:	Standard Play Mode **(➜ 19)**
●LP:	Long Play Mode **(➜ 19)**

7) **Index**
   - For several seconds while index signals are being recorded, the [INDEX] Indication flashes. **(➜ 31)**

   Search Number [S1] (➜ 31)
   - The figure indicates which number of scenes ahead from the present scene is to be played back.

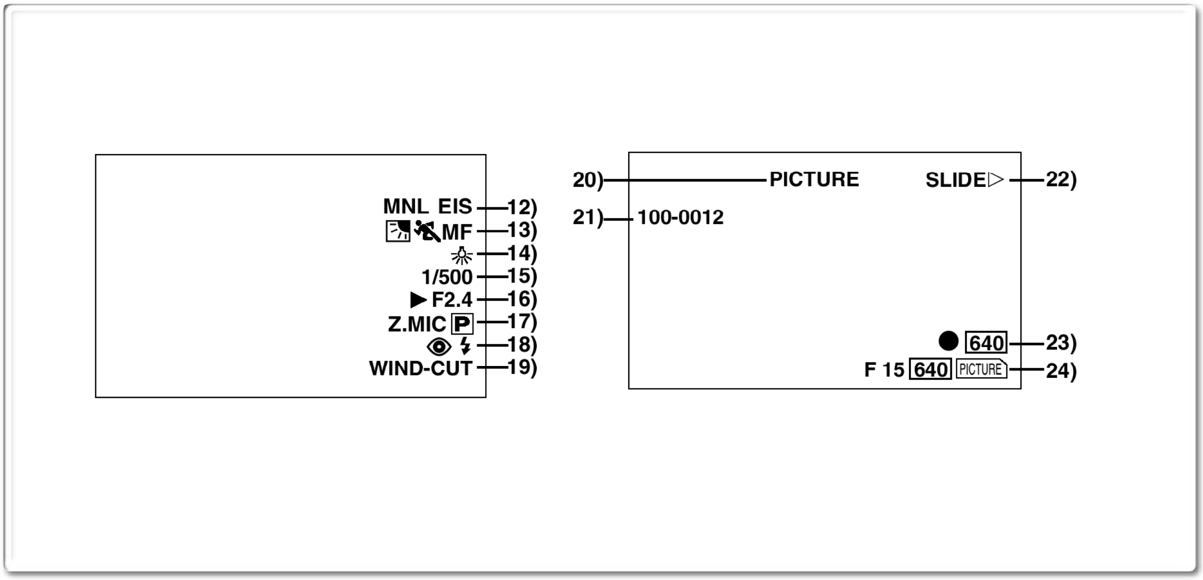
8) **Tape Run Indications**

●REC:	Recording **(➜ 20)**
●PAUSE:	Recording Paused **(➜ 20)**
●▷:	Playback/Camera Search in forward direction **(➜ 20, 29)**
●◁:	Camera Search in reverse direction **(➜ 20)**
●❚❚:	Still Playback **(➜ 30)**
●▷▷:	Fast-forward/Cue Playback **(➜ 29)**
●◁◁:	Rewind/Review Playback **(➜ 29)**
●❚▷:	Slow Playback in forward direction **(➜ 30)**
●◁❚:	Slow Playback in reverse direction **(➜ 30)**
●❚❚▷:	Still Advance Playback in forward direction **(➜ 30)**
●◁❚❚:	Still Advance Playback in reverse direction **(➜ 30)**
●▷▷❚:	Index Search in forward direction **(➜ 31)**
●❚◁◁:	Index Search in reverse direction **(➜ 31)**
●CHK:	Recording Check **(➜ 20)**
●A.DUB ▷:	Audio Dubbing **(➜ 34)**
●A.DUB ❚❚:	Audio Dubbing Pause **(➜ 34)**
●PHOTO:	PhotoShot Mode Recording **(➜ 21)**
●BLANK:	Blank Search **(➜ 30)**
●R ▷:	Repeat Playback **(➜ 29)**
●2× ▷▷:	Variable Speed Search **(➜ 29)**

9) **Zoom Magnification**
   - When the [W/T] Zoom Lever is pushed up or down, the Zoom Magnification Indication and Zoom Gauge appear. **(➜ 21, 22)**

10) **Sound Volume**
    - Use this indication to adjust the volume of playback sound from the built-in speaker or headphones. **(➜ 29)**

11) **Date/Time Indication [5:30:45PM /OCT 1 2002] (➜ 19, 58)**



12) Recording Mode
- AUTO: This appears when Mode Selector Switch is set to [AUTO]. **(➜ 20)**
- MNL: This appears when Mode Selector Switch is set to [MANUAL]. **(➜ 23, 24, 25)**

Optical Image Stabilizer [EIS] (➜ 22)
Audio Dubbing Input Display [MIC/AV IN] (➜ 34)
Audio Recording Mode [12bit/16bit] (➜ 34)

13) Manual Focus [MF] (➜ 24)
Backlight Mode [▨] (➜ 23)
Program AE Mode
- ●: Sports Mode **(➜ 23)**
- ●: Portrait Mode **(➜ 23)**
- ●: Low Light Mode **(➜ 23)**
- ●: Spotlight Mode **(➜ 23)**
- ●: Surf & Snow Mode **(➜ 23)**

14) White Balance Mode
- AWB: Automatic White Balance Mode **(➜ 25)**
- ●: Last manually adjusted White Balance setting **(➜ 25)**
- ●: Fluorescent light Mode **(➜ 25)**
- ☀: Outdoor Mode **(➜ 25)**
- ●: Indoor Mode (recording under incandescent lamp) **(➜ 25)**

15) Shutter Speed [1/500] (➜ 24)
16) Iris Value [F2.4] (F number) (➜ 24)
17) Zoom Microphone [Z.MIC] (➜ 21)
Progressive PhotoShot^{TM} Mode [P] (➜ 21)
18) Red Eye Reduction [◉] (➜ 26)
Video Flash [ϟ] (➜ 26)
19) Wind Noise Reduction [WIND-CUT] (➜ 16)
20) File Type Display [PICTURE/MPEG4/VOICE/TITLE] (➜ 38, 41)
21) Folder-File Number (➜ 38, 39)
22) Card File Indications 1 (CARD P.B. Mode)
- SLIDE▷: Slide Show Playback **(➜ 40)**
- SLIDE❚❚: Slide Show Playback Pause **(➜ 40)**
- M.SLIDE▷: Manual Slide Show Playback **(➜ 40)**
- M.SLIDE❚❚: Manual Slide Show Playback Pause **(➜ 40)**

23) Card File Indications 2 (CARD P.B. Mode)
- **Image size [640/1280] (➜ 35, 38)**

When you playback a scene recorded on a Palmcorder with a picture size specification different from the one stated above, the following indications should be displayed.If the size of the picture is from 640 pixels to 800 horizontal pixels, the [640] Indication will be displayed;
if picture size is 640 pixels or lower, the scene should be displayed without any indication of picture size.
- SVGA : From 800 to 1024 pixels
- XGA : From 1024 to 1280 pixels
- SXGA : From 1280 to 1600 pixels
- UXGA : Above 1600 pixels
- **Number set DPOF [00] (➜ 43)**

DPOF setting & Slide Show
- ● (White): DPOF Setting completed (set to 1 or more picture) **(➜ 43)**
- ● (Green): Slide Show Settings completed **(➜ 40)**
- ● (Blue): DPOF Setting (set to 1 or more picture)/Slide Show Settings both completed **(➜ 40, 43)**

24) Card File Indications 3 (Camera Mode)
- **Card PhotoShot picture quality [F/N/E] (➜ 36)**
(Card PhotoShot Recording) [F] is Fine, [N] is Normal, [E] is Economy in abbreviated terms.
- **Recording in Card PhotoShot [PICTURE (MPEG4 , VOICE)] (red) (➜ 35)**
- **Memory Card is not inserted [~~PICTURE~~ (~~MPEG4~~, ~~VOICE~~)] (flashing in red) (➜ 35)**
- **Card PhotoShot is ready to record [PICTURE (MPEG4 , VOICE)] (cyan) (➜ 35)**
- **File number [No.000] (➜ 38)**
- **Remaining number of Card PhotoShot Picture [000] (➜ 35)**
- **Lock setting [⊶] (➜ 42)**

■Changing the Counter Display Mode

By changing [C.DISPLAY] on the [DISPLAY SETUP] Sub-Menu, you can change the Counter Display Mode to Tape Counter Indication (0:00.00), Memory Counter Indication (M0:00.00), and Time Code Indication (0h00m00s00f).

- You also can press the [COUNTER] Button of the Remote Controller repeatedly to change the Counter Indication.

■Displaying Date/Time Indication

To display Date/Time Indication, set the appropriate date/time in [DATE/TIME] on the [DISPLAY SETUP] Sub-Menu.

- You can also press the [DATE/TIME] Button of the Remote Controller repeatedly to display or change the Date/Time Indication.

■Changing the Display Mode

By changing [DISPLAY] on the [DISPLAY SETUP] Sub-Menu, Counter Display Mode changes to All Function Display, Partial Display, and Minimum Display.

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Warning/Alarm Indications

If any one of the following indications lights up or flashes, please check the condition of the Palmcorder.

EJECT TAPE:	After the [DEW DETECTED] Indication appears, eject the Cassette.
CHECK REC TAB :	The erasure prevention tab on the inserted Cassette is open (that is, set to [SAVE]). When you are attempting to do audio dubbing on the unrecorded (blank) portion of the tape, or you are attempting to do dubbing on the Cassette whose tab is set at [SAVE]. **(➜ 34, 44, 45)**
TAPE NOT INSERTED:	No Cassette is inserted. **(➜ 13)**
🔋 LOW BATTERY:	The Battery is low. Recharge it. **(➜ 12)**
⊘:	The internal lithium battery is low. **(➜ 19)**
END/TAPE END:	The tape ended during recording.
REMOTE/ CHECK REMOTE MODE:	Wrong Remote Controller Mode has been selected. **(➜ 11)**
CANNOT REC LP-MODE:	Because the original recording was done in LP Mode, audio dubbing cannot be performed. **(➜ 34)**
INCOMPATIBLE DATA:	This Cassette is incompatible or contains copy-guard. Because the medium is protected by a copy guard, images cannot be recorded correctly.
!:	If this Indication appears, return the LCD Monitor to the original position in order to check the specific content of the Warning/Alarm Indication.
AV INPUT RECORDING:	When you are attempting to record on the Memory Card during dubbing **(➜ 44, 45)** on the Cassette.
NO CARD:	There is no Memory Card inserted.
PLEASE WAIT:	When reading of the Memory Card (playback, format, when using the Multi-Picture Function). **(➜ 38, 39, 43)**
CARD ERROR:	The Memory Card is not compatible with the Palmcorder.
CARD DOOR OPENED:	Card Slot Cover is opened. After inserting the Memory Card correctly, close the Card Slot Cover.
CHECK SELECT SWITCH:	With the combination of modes set with the [TAPE/CARD] Selector and the [STILL/MPEG4/VOICE] Selector, this Indication appears: Pressing the Recording Start/Stop Button with [CARD] and [STILL] in Camera Mode. Pressing the PhotoShot Button with [CARD] and [MPEG4] or [VOICE] in Camera Mode. Pressing the PhotoShot Button with [TAPE] and [STILL] in VCR Mode. Pressing the Recording Start/Stop Button with [TAPE] and [MPEG4] in VCR Mode. Pressing the PhotoShot Button with [CARD] and [STILL] in Card Playback Mode.
FILE LOCKED:	When you are attempting to delete a locked picture. The locked picture cannot be deleted.
WRITE PROTECTED:	When you are attempting to write the data on an SD Memory Card whose write protection switch is set at [LOCK].
NO PICTURE:	There are no pictures in the Memory Card.
NO MPEG4 DATA:	There are no moving pictures in the Memory Card.
NO VOICE DATA:	There are no voice data in the Memory Card.
NO TITLE:	There are no titles in the Memory Card.
NO SPACE LEFT:	When a still Picture is transferred from a Cassette to an already full Memory Card.
CHANGE TO 640×480:	Titles cannot be displayed. **(➜ 41)** Set to the [640×480] resolution setting.
×:	Pictures of a different format or damaged pictures are being played back. **(➜ 38)**
U10:	Wait until the [DEW DETECTED] Indication disappears. **(➜ 65)**
DEW DETECTED:	Condensation has occurred. **(➜ 65)**
U11:	Clean the Video head. **(➜ 65)**
⊗ NEED HEAD CLEANING:	The video heads are dirty. **(➜ 65)**
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Notes & Precautions

Power-Related Items (➜ 12)

- When the Palmcorder is used for a long time, the Camera body becomes warm, but this is not a malfunction.
- If the [CHARGE] Lamp does not light up although the Battery is attached, detach the Battery, and reattach it.

Inserting/Ejecting the Cassette (➜ 13)

- In the case of using a previously recorded Cassette, you can use the Camera Search Function to find the position where you want to continue recording.
- If a new Cassette is inserted, rewind to the beginning of the tape before starting recording.

If the Cassette Holder Does Not Go Back in:

- Press the [PUSH TO CLOSE] mark and close the Upper Cassette Compartment Cover firmly.
- Turn off the Palmcorder and then turn it on again.
- Check if the Battery charge is low.

If the Cassette Holder Does Not Come Out:

- Close the Lower Cassette Compartment Cover completely. Then, open it again.
- Check if the Battery is weak.

Alarm Sounds

When [BEEP] on the [OTHER FUNCTIONS] Sub-Menu on the [CAMERA FUNCTIONS] Main-Menu is set to [ON], confirmation/alarm beeps are issued as follows.

1 Beep
- When you start recording
- When you switch the [OFF/ON/MODE] Switch from [OFF] to [ON]

2 Beeps
- When you pause recording

10 Beeps
- If you perform a wrong operation before or during recording

Recording (➜ 20)

- Before turning on the Palmcorder, remove the Lens Cap. If the lens cap is still attached when the Palmcorder is turned on, Automatic White Balance Adjustment may not function correctly.

Recording Check (➜ 20)

- For recording check, the Palmcorder must be the same as the recording speed Modes (SP/LP) used for the recording. Otherwise the playback images will be distorted.

Camera Search (➜ 20)

- In Camera Search Mode, images may contain mosaic-like noise patterns. This is a phenomenon that is characteristic of digital video and not a malfunction.
- If the recording speed Modes (SP/LP) of previous recording and new recording are different, playback images may be distorted.

Progressive PhotoShot™ Mode (➜ 21)

- When you change to the still picture Mode, you will hear a click. This is the sound of the iris closing and not an indication of malfunction.
- If you record still pictures in Progressive PhotoShot™ Mode when your Palmcorder is set to Program AE, the brightness of the images may vary.

About [PROGRESSIVE] Setting

- When the [P] Indication is displayed, you can use the Progressive PhotoShot Function.

When [PROGRESSIVE] is set to [ON]:

You can use the Progressive PhotoShot Function at any time. In this case, however, the following functions are disabled.

- [EFFECT1] Digital Effect Modes
- Digital Zoom [D.ZOOM]
- 1/750 or faster shutter speed
- Continuous PhotoShot Function
- [REC MODE] on the [CAMERA SETUP] Sub-Menu is set to [NORMAL] ([FRAME] is not available)

When [PROGRESSIVE] is set to [AUTO]

You cannot use the Progressive PhotoShot Function in the following circumstances.

- When the zoom magnification is approximately 10× or higher
- When the shutter speed is 1/750 or faster
- When [EFFECT1] is set to [WIPE], [MIX], [STROBE], [MAGICPIX], [TRAIL], [MOSAIC], [MIRROR]
- When the pictures are displayed on a Multi Screen or P-IN-P screen
- Continuous PhotoShot Function

Zoom In/Out Functions (➜ 21, 22)

- By pressing the [W/T] zoom lever to [W] or to [T] in Recording Pause Mode, you can zoom 1–10× at the maximum speed of 0.4 seconds.
- During recording, you can zoom 1–10× in as short a time as approximately 0.8 seconds.
- During considerably fast zooming, the image may become out of focus temporarily.
- When you are using a high amount of zoom, a sharper focus is achieved if the recording subject is approximately 4 feet (1.2 m) or more away from the Palmcorder.

Optical Image Stabilizer Function (➜ 22)

- Within the digital zoom range, the Optical Image Stabilizer function may not work effectively.
- If [TAPE/CARD] selector is set to [TAPE], [MEGA EIS] cannot be set.
- If [STILL/MPEG4/VOICE] Selector is set to [MPEG4] or [VOICE], [MEGA EIS] cannot be set.
- Within the digital zoom range, or when recording with a conversion lens attached, the Optical Image Stabilizer function may not work effectively.
- When a tripod is used, it is recommended that you turn the Optical Image Stabilizer function off.

Fade In/Out Mode (➜ 22)

Fading-in and fading-out cannot be used when recording still pictures in the PhotoShot Mode, Digital Still picture Mode, Multi-Picture Mode, and for the small still picture in the Picture-in-Picture Mode.

Cinema Function (➜ 23)

- Cinema function does not operate during Card Mode.
- Using the Cinema function does not widen the recording angle.
- If you play back tape recorded in Cinema Mode on a wide-screen (16:9) format TV, playback size is automatically adjusted to fit the TV screen format. Please refer to the TV's operating instructions for details.
- When images are displayed on a TV screen, the Date/Time Indication may be erased in some cases.
- Depending on the TV, the picture quality may be poor.
- The Cinema Mode is cancelled when a Title is displayed.

Program AE (➜ 23)

- If any of the Program AE Modes is selected, you cannot adjust the shutter speed or iris.
- You cannot use Program AE with Gain-up Mode [MAGICPIX].

Sports Mode
- During normal playback, the image movement may not appear smooth.
- Because the color and brightness of the playback image may change, avoid recording under fluorescent light, mercury light or sodium light.
- If you record a subject illuminated with strong light or a highly reflective subject, vertical lines of light may appear.
- If the light is insufficient, the [🏃] Indication flashes.

Sports Mode/Portrait Mode
- If you record a still picture in Progressive PhotoShot™ Mode, the brightness of the recorded still picture may become unstable.
- If these modes are used for indoor recording, playback images may flicker.

Low Light Mode
- Extremely dark scenes may not be able to be made brighter to a satisfactory degree.

Spotlight Mode
- With this Mode, recorded images may turn out to be extremely dark.
- If the recording subject is extremely bright, its recorded image may turn out to be whitish.

Surf & Snow Mode
- If the recording subject is extremely bright, its recorded image may turn out to be whitish.

Manual Shutter Speed Adjustment (➜ 24)

- You may see vertical lines of light in the playback image of a brightly shining subject or highly reflective subject.
- During Normal Playback, transition from one scene to another may not appear smooth.
- Because the color and brightness of the playback image may become unstable, avoid recording under fluorescent light, mercury light or sodium light.
- If you are using either MAGICPIX Mode or Program AE Mode, you cannot adjust the shutter speed. If the shutter speed is adjusted manually, this setting will be cancelled.

Manual Iris Adjustment (➜ 24)

- Depending on zoom magnification, the iris value may not be displayed correctly.
- If you are using either MAGICPIX Mode or Program AE Mode, you cannot adjust the iris.

White Balance (➜ 25)

In the following cases, you cannot change White Balance:
- When you set [EFFECT1] of [DIGITAL EFFECT] Sub-Menu on the [CAMERA FUNCTIONS] Main-Menu to [MAGICPIX] or [EFFECT2] to [SEPIA] or to [MONO].
- When you set the Zoom to 10× or higher
- During Digital Still Picture Mode
- When you display a Menu

In the following cases, the [◺■◿] Indication flashes:
- The flashing indicates that the previously adjusted White Balance setting is still kept. This setting will be kept until White Balance is adjusted again.
- You may not be able to achieve correct White Balance adjustment manually under weak illumination.

Video Flash (➜ 26)

- Even when the Video Flash is closed, it automatically determines if flash is needed by sensing the surrounding luminosity. (If flash is needed, either [ϟ], [ϟ+] or [ϟ−] Indication flashes in yellow.)
- When P-IN-P is displayed (the [P-IN-P] Button is pressed) or Title is created, Video Flash is also set off.
- Continuous PhotoShot is not possible if the Video Flash is used.
- When the [FLASH] on the [RECORDING SETUP] Sub-Menu is set to [AUTO] and the Shutter Speed, Iris or Gain is adjusted, the Indication (either [ϟ], [ϟ+] or [ϟ−]) may disappear and the Video Flash may not be set off.
- The shutter speed and iris value are fixed when the Video Flash is used.
- Using the Video Flash outdoors or with Backlight or other bright conditions may result in white blotches (color blotches) on the pictures.
- Under Backlight conditions, either adjust the iris manually or use the Backlight Compensation Function.

Digital Effect Functions (Camera Mode) (➜ 27)

- If you set [EFFECT1] on [DIGITAL EFFECT] Sub-Menu to [MAGICPIX], you need to adjust the focus manually. However, you cannot adjust the shutter speed and iris and cannot select White Balance.
- If [EFFECT2] on the [DIGITAL EFFECT] Sub-Menu is set to [MONO] or [SEPIA], the selected White Balance Mode cannot be changed.
- You cannot use Program AE with Gain-up Mode [MAGICPIX].
- When [PROGRESSIVE] on the [CAMERA SETUP] Sub-Menu is set to [ON], it is not possible to use any of the digital modes in [EFFECT1] on the [DIGITAL EFFECT] Sub-Menu.

Wipe Mode and Mix Mode (Camera Mode) (➜ 27)

If either one of the following operations is carried out, stored images will be erased, and Wipe and Mix Functions cannot be used.

- Use the Camera Search Function
- Press the [STILL] Button
- Switch the [TAPE/CARD] Selector

Multi-Picture Mode (Camera Mode) (➜ 28)

- When [PROGRESSIVE] on the [CAMERA SETUP] Sub-Menu is [ON], Multi-Picture Mode cannot be used.
- If the [MULTI] Button is pressed while self-recording Mirror mode **(➜ 20)** is used, the still picture is displayed from the upper right corner of the screen, but, in reality, the picture is recorded from the upper left corner as usual.
- The quality of images recorded in Multi Mode deteriorates slightly.
- Multi Mode cannot be used in still picture mode or when mega-pixel recording is set.

P-IN-P Mode (➜ 28)

- Pictures in P-IN-P Mode cannot be recorded with Progressive PhotoShot.
- If the Palmcorder power is turned off, the smaller picture will disappear.
- A title cannot be inserted into the smaller picture.

Index Search Functions (➜ 31)

- Index Search may not be possible at the beginning of tape.
- Because PhotoShot Index Signals are not recorded on still pictures recorded in Continuous PhotoShot Mode, the PhotoShot Index Function cannot be used for these still pictures.
- Scene Index Search may not function properly if the interval between 2 scene index signals is shorter than 1 minute.

Playback Zoom Functions (➜ 32)

- You cannot adjust volume with the Remote Controller in Playback Zoom Mode.
- If you turn off the Palmcorder, or if you switch from VCR Mode to Camera Mode, Playback Zoom Mode is automatically cancelled.
- Even if Playback Zoom Functions are being used, images that are output from the DV Terminal or Digital Still Picture Terminal are not enlarged.
- As you enlarge an image, the quality of image suffers.
- If you select Multi-Picture Mode in the Playback Zoom Mode, equivalent magnification (1×) becomes zoom magnification.
- During the Playback Zoom Function, the Variable Speed Search Function cannot be used with the Remote Controller.

Playback Digital Effect Functions (➜ 32)

- Revised signals of images to which digital effects are added during playback cannot be output from the DV Terminal or Digital Still Picture Terminal.
- You cannot use the Wipe Function or Mix Function while playing back the non-recorded portion of tape.

Multi-Picture Mode (VCR Mode) (➜ 33)

- The quality of Multi images deteriorates slightly.
- Playback multi-mode screens cannot be output through DV Terminal or Digital Still Picture Terminal.
- If there is input from the DV Terminal, a multi screen cannot be created.
- When signals are input from Video Input/Output Jack or Audio-Video Input/Output Jack, a multi screen cannot be re-displayed.
- Signals input from Video Input/Output Jack or Audio-Video Input/Output Jack cannot be displayed on a multi screen.
- If you switch the Palmcorder from the Index Multi-Picture Mode over to the Camera Mode, the setting of [SCAN MODE] on the [MULTI-PICTURES] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu is automatically set to [STROBE].

Listening to Playback Sound Through Headphones (➜ 29)

If you want to listen to the playback sound of a tape through headphones, set [AV JACK] on the [AV IN/OUT SETUP] Sub-Menu to [OUT/PHONES] and connect the headphones to the [PHONES] Jack on this Palmcorder. In this case, no sound (including warning sounds and shutter sounds) will be reproduced through the built-in speaker of the Palmcorder. When the A/V Cable is inserted into the AV Jack, the internal speaker works.

Selecting the Sound during Playback (➜ 29, 34)

You can select the sound by using the [AUDIO OUT] on the [PLAYBACK FUNCTIONS] Sub-Menu.

STEREO:	Stereo Sound (main sound and subsound)
L:	Left channel sound (main sound)
R:	Right channel sound (sub sound)

- If you dub a tape recorded at the [12bit] selected as the [AUDIO-REC] on the [RECORDING SETUP] Sub-Menu, playback sound becomes stereo sound regardless of the [AUDIO OUT] setting if [AUDIO] is set to [MIX].

Audio Dubbing (➜ 34)

- The blank section of a tape cannot be dubbed.
- Sounds sent through the DV Terminal cannot be dubbed.
- If a tape has a non-recorded portion when the tape is dubbed, images and sounds may be disturbed when this portion of the tape is played back.
- If you set the tape counter back to 0 at the position where you want to stop Audio Dubbing so as to make it possible to use the Memory Stop function **(➜ 67)**, Audio Dubbing is terminated automatically when the tape reaches this position.
- In the case of importing data recorded with Audio Dubbing to a Computer using the Computer's software program, only the original sound (ST1) may be imported, depending on the software program.

Microphone Jack

When audio dubbing is carried out through an external microphone or audio equipment, connect it to the [MIC] Jack. In this case, the built-in microphone of the Palmcorder will be turned off.

Using your Palmcorder with Digital Video Equipment (Dubbing) (➜ 45)

- Regardless of the setting, dubbing is carried out automatically in the same audio recording Mode as that of the Cassette in the playback-side equipment.
- The images on the monitor of the recording side may be disturbed, but it does not affect the recorded images.
- Even if Playback Digital Effects, Playback Zoom, or Playback Title In have been used, these effects are not output from the DV Terminal.
- Even if you use a device with DV Terminals (such as i.LINK), you may not be able to perform digital dubbing in some cases.

Card Functions (➜ 35–43)

- Do not touch the connector terminal located on the back of the card.
- If the Card Slot Cover is open, the card cannot be accessed.
- Wide images cannot be recorded on the Memory Card.
- A card that was formatted with this Palmcorder may not be usable in other equipment. If this happens, please format the card with the equipment with which the card is to be used. Before proceeding with this operation, we suggest that you take the precautionary measure of storing important images in your personal computer.
- In the Card PhotoShot mode, the Palmcorder automatically saves the file numbers (Imga0001.jpg, etc.) along with the pictures. A file number is recorded with each picture as a running number.

Recording to a Card from other equipment (➜ 36, 44)

- Black streaks may appear at the four edges of the image.
- When the [PHOTO SHOT] Button is pressed, the image may seem to move backward momentarily, but this does not affect the recording.
- During the recording with analog input, a Card PhotoShot Function cannot be used.

Card PhotoShot (➜ 36)

- The sound cannot be recorded.
- The Shutter Effect cannot be used.
- The Progressive Function is set to [ON].
- The shutter speed range from 1/30–1/500
- Mega-pixel images cannot be recorded on a cassette as a Mega-pixel picture.
- A Card formatted with an other equipment (like a Personal Computer) might be unusable or it might take more time for recording. We recommend that you use your Palmcorder to format it.

The following functions are not possible.

- Digital Zoom
- Cinema Mode
- Digital Effects/Functions
- Title functions (When in Mega-pixel mode only)

Recording Moving Pictures (MPEG4)/ Recording Voice (Voice Recording Function) (➜ 37)

- The file format supported by this Palmcorder is ASF. (Some ASF formatted files may not be played back.)
- [PHOTO SHOT] Button does not operate.
- The sound is recorded in monaural, that is, mixed [L] and [R] of the stereo sound.
- When the color of the screen changes or blurs, adjust the shutter speed manually to 1/30, 1/60 or 1/100.
- If the [PICTURE/MPEG4/VOICE] Selector is set to [VOICE], recording to a card is not possible.
- The Zoom Microphone Function is disabled.
- The continuous recording time for voice depends on the capacity of the memory card. (24 hours, max.)

Card Playback (➜ 38)

- If a blank (nothing recorded) Card is played, the screen becomes white and the [NO PICTURE], [NO MPEG4 DATA] or [NO VOICE DATA] Indication appears depending on the mode selected.
- If you attempt to play back if file recorded in a different format or if file data is defective, the [×] Indication and the [CARD ERROR] Indication could appear as a warning.
- In the case of displaying memory images on a Multi Screen, if there are 7 or more images, they cannot be displayed all at once. Rotate the [PUSH] Dial or push the Operation Lever towards [+] to display the next 6 still pictures.
- When the pictures recorded by another Palmcorder are played back with this Palmcorder, the size of the pictures may be different from the recorded size.
- MPEG4 data or Voice data will not be output from DV Terminal.
- MPEG4 data cannot perform Cue/Review Playback, Slow Motion Playback (forward direction and reverse direction), Still Advance Playback (forward direction and reverse direction) or Jog Playback.
- During automatic copying tape pictures onto a card, the remaining number of pictures that can still be recorded on the Card is displayed. When it becomes [0], the Tape is set to the Recording Pause Mode.
- For the MPEG4 moving pictures recorded on the camera other this camera, "×" may be displayed when they are played back. If the [▶] Button is pressed in this case, "▷" will be displayed for a few seconds and the next image will be displayed.
- For the still images recorded on the camera other this camera, the mega-pixel image size may be displayed.
- If an MPEG4 motion picture is played continuously for a long time, the playback may stop in the midway and the video camera may freeze while a still picture is being displayed. Under the condition, press the [RESET] button.

Voice Power Save (➜ 38)

- Voice Power Save Function automatically shuts off the monitor to reduce the power consumption when no operation is being performed in the Voice Recording Mode. When [VOICE POWER SAVE] on the [OTHER FUNCTIONS] Menu is set to [ON], the power save function is activated, and the screen turns off in a few seconds after operations, such as play or recording are performed.
- The Voice Power Saving Function is cancelled when any operation is performed.
- Do not forget to turn off the power.

Slide Show (➜ 40)

- The playback time can be set from 5 to 99 seconds.
- Perform the Slide Show Settings with your own Palmcorder.
- Depending on the File size, playback may take longer played back than the set time.
- When performing the Slide Show after the Titles are displayed, the Titles disappear.

Title Functions (➜ 41)

- When the [STILL/MPEG4/VOICE] Selector is set to [MPEG4] or [VOICE], Title Creation Function is not possible.
- If the [PICTURE SIZE] is set to [1280×960], title cannot be created.
- Even if the contrast of the Title is adjusted, the portions where there is little difference between light and dark and where the boundary between light and dark is unclear may not appear.
- The Title may not appear well if something small is used for it.
- If you create an original title, the number of pictures that can be recorded on the Memory Card decreases.
- If the number of pictures that can be recorded on the Memory Card is small, you may not be able to create an original title in some cases.
- When a title is displayed in VCR Mode, the title is not output from the DV Terminal or Digital Still Picture Terminal.
- When the [TAPE/CARD] Selector is set to [CARD] and [1280×960] is selected for [PICTURE SIZE], titles are not displayed.
- When the [STILL/MPEG4/VOICE] Selector is set to [MPEG4] or [VOICE], Title In Function is not possible.

DPOF setting (➜ 43)

- The number of prints can be set from 0 to 99.
- Perform DPOF setting on the Palmcorder you are using.
- It may take some time to verify the DPOF setting. Please wait until the [ACCESS] Lamp goes off.

Using a Card in a Personal Computer

- To erase pictures that you recorded on the Card by using the Palmcorder, be sure to erase them on the Palmcorder, not on the computer.
- You may not be able to properly play back or search the images on the Palmcorder after editing the recorded data or changing the image data on a personal computer.

Cautions for Use

■After Use

1. **Take out the Cassette. (➜ 13)**
2. **Set the [OFF/ON/MODE] Switch to [OFF]. (➜ 14)**
3. **Detach the Power Source and retract the Viewfinder. (➜ 12)**
4. **To protect the Lens, attach the supplied Lens Cap. (➜ 13)**

■Tips for using your Palmcorder

When you use your Palmcorder on a rainy or snowy day or on a beach, make sure that no water enters the Palmcorder.

- Water may cause the Palmcorder or Cassette to malfunction. (Irreparable failure may occur.)
- If sea water splashes onto the Palmcorder, wet a soft cloth with tap water, wring it well, and use it to wipe the Palmcorder body carefully. Then, wipe it again thoroughly with a soft dry cloth.

Keep the Palmcorder away from magnetically charged equipment (such as a TV, game equipment, etc.)

- If you use the Palmcorder near a TV, images or sounds may be disturbed due to electromagnetic wave radiation.
- Strong magnetic fields created by speakers or large motors, recording on the tape may be damaged, or images may be distorted.
- Electromagnetic wave radiation generated by a microprocessor may adversely affect the Palmcorder, causing the disturbance of images and sounds.
- If the Palmcorder is affected by magnetically charged equipment and does not function properly, turn off the Palmcorder power and detach the Battery or AC Adaptor and then connect the Battery or AC Adaptor again. Thereafter, turn on the Palmcorder power.

Do not use your Palmcorder near radio transmitters or high-voltage lines.

- If you record pictures near radio transmitters or high-voltage lines, recorded images or sounds may be adversely affected.

Do not use this Palmcorder for surveillance purpose or other business use.

- If you use the Palmcorder for a long period of time, the internal temperature increases and, consequently, this may cause malfunction.
- This Palmcorder is not intended for industrial use.

When you use your Palmcorder on a beach or similar place, do not let sand or fine dust get into the Palmcorder.

- Sand or dust may damage the Palmcorder or Cassette. (Care should be taken when inserting and removing the Cassette.)

Do not spray insecticides or volatile chemicals onto the Palmcorder.

- If the Palmcorder is sprayed with such chemicals, the Palmcorder body may deform and the surface finish may peel off.
- Do not keep a rubber or plastic product in contact with the Palmcorder for a long period of time.

When cleaning the Palmcorder, do not use any solvent, such as benzine, alcohol, thinner, etc.

- The Palmcorder body may become damaged and the surface finish may peel off.
- Before cleaning, detach the Battery or pull out the AC Cable from the AC Jack.
- Wipe the Palmcorder with a soft dry cloth. To remove stubborn stains, wipe with a cloth that is soaked in a detergent diluted with water and afterward finish wiping with a dry cloth.
- For storing or transporting the Palmcorder, place it in a bag or case lined with soft pads so as to prevent the coating on the Palmcorder body from becoming worn.

After use, be sure to take the Cassette out and detach the Battery from the Palmcorder or pull out the AC Cable from the AC Jack.

- If the Cassette is left in the Palmcorder, the tape sags and deteriorates.
- If you leave the Battery attached to the Palmcorder for a long time, the voltage drops excessively, and the Battery will not function even after it is recharged.

■About the AC Adaptor

- If the temperature of the Battery is extremely high or extremely low, the [CHARGE] Lamp may continue flashing, and the Battery may not charge. After the temperature of the Battery has decreased or increased sufficiently, charging starts automatically. If the [CHARGE] Lamp continues to flash even after the Battery temperature has decreased or increased sufficiently, the Battery or AC Adaptor may be faulty. In this case, please contact your dealer.
- If the Battery is warm, charging takes a longer time than normal.
- If you use the AC Adaptor near a radio, radio reception may be disturbed. Keep the AC Adaptor 1 meter or more away from radios.
- When the AC Adaptor is in use, it may generate whirring sounds. This is normal.
- After use, be sure to pull out the AC Cable from the AC Jack. (If they are left connected, a small amount of electricity is consumed.)
- Always, keep the electrodes of the AC Adaptor and Battery clean.

■ Condensation

If excessive moisture condenses in the unit, [DEW DETECTED] Indication will flash, and the Palmcorder will automatically turn off after about 1 minute.
In this happens, follow the steps below:

1 **Take out the Cassette.**
  - None of the other functions operate. Depending on the amount of condensation, removing the Cassette may become difficult. If this happens, wait for 2 to 3 hours before taking the Cassette out.

2 **Open the Cassette Compartment and wait for 2 to 3 hours.**
  - The number of hours you should wait depends on the amount of condensation and ambient temperature.

3 **2 to 3 hours later, turn on the Palmcorder and check to see if the [DEW DETECTED] Indication is displayed.**
  - Even if the [DEW DETECTED] Indication is not displayed, as a precaution, please wait for another hour before using the Palmcorder.

Watch for Condensation Even Before the [DEW DETECTED] Indication Is Displayed.

- Because condensation takes place gradually, the [DEW DETECTED] Indication may not be displayed during the first 10 to 15 minutes of condensation formation inside the Palmcorder.
- In extremely cold places, condensation may freeze and form frost. In this case, the frost melts first, thus forming condensation, and then it takes another 2 to 3 hours to eliminate the condensation.

When the Lens Is Fogged:
Set the [OFF/ON/MODE] Switch to [OFF] and leave the Palmcorder in this condition for about 1 hour. When the lens temperature becomes close to the ambient temperature, the fog disappears naturally.

■ Digital Video Head Cleaner

If the heads (the parts that make contact with tape) are dirty, mosaic-like noise patterns may appear on the playback image, or the screen as a whole becomes black. If the heads are extremely dirty, recording performance deteriorates, and, in the worst case, the Palmcorder cannot record at all.

Causes of Digital Video Heads Becoming Dirty

- Large quantity of dust in the air
- High-temperature and high-humidity environment
- Damaged tape
- Long operating hours

Using Mini-DV Format Digital Video Head Cleaner

1 **Insert the Head Cleaner into the Palmcorder in the same manner as a Video Cassette.**

2 **Push the Operation Lever towards [▶], and 20 seconds later, push the Operation Lever towards [■] Button. (Do not rewind the tape.)**

3 **Take out the head cleaner. Insert a Video Cassette and start recording. Then, play the tape back to check the recorded image.**

4 **If the image is still not clear, repeat Steps 1 to 3. (Do not use the Head Cleaner 3 times or more consecutively.)**

Notes:

- Do not rewind every time you use the Head Cleaner. Rewind only when the tape reaches the end, and then use it again from the beginning in the same manner as before.
- If the heads become dirty soon after cleaning, the tape may be damaged. In this case, immediately stop using that Cassette.
- Do not clean the heads excessively. (Excessive cleaning may cause excessive wear of the heads. If the heads are worn, images cannot be played back even after the heads are cleaned.)
- If the dirty heads cannot be cleaned with the head cleaner, the Palmcorder needs to be cleaned at a service center. Please consult a distributor or Panasonic Service center.
- Video head cleaners can be purchased from service centers.
- Head cleaning due to dirty heads is not considered a malfunction of the product. It is not covered by the warranty.

Periodical Check-up
To maintain the highest image quality, we recommend replacement of worn parts, such as heads, etc., after approximately 1000 hours of use. (This, however, depends on operating conditions, such as temperature, humidity, dust, etc.)

■ Optimal Use of the Battery

Battery Characteristics
This Battery is a rechargeable lithium ion battery. Its ability to generate power is based upon the chemical reaction that takes place inside it. This reaction is affected by the surrounding temperature and humidity, and, if the temperature is too high or too low, the operating time of the Battery becomes shorter. If the Battery is used in an extremely cold environment, the Battery may operate only for about 5 minutes. If the Battery becomes extremely hot, a protective function may operate, and the Battery may even become unusable for awhile.

Be Sure to Detach the Battery After Use
Be sure to detach the Battery from the Palmcorder. (If it is left attached to the Palmcorder, a minute amount of current is consumed even when the Palmcorder power is off.) If the Battery is left attached to the Palmcorder for a long time, over discharge takes place. The Battery may become unusable even after it is charged.

Disposing of an unusable Battery

- The Battery has a limited life.
- Do not throw the Battery into fire because it may cause an explosion.

Always Keep the Terminals of the Battery Clean
Prevent the terminals from getting clogged with dirt, dust, or other substances.
If you drop the Battery accidentally, check to see if the Battery body and terminals are damaged.
Attaching a damaged Battery to the Palmcorder or AC Adaptor may damage the Palmcorder or AC Adaptor.

Cautions for Storage

Before storing the Palmcorder, take the Cassette out and detach the Battery.
Store all the components in a dry place with a relatively stable temperature.

- Recommended Temperature: 59°F to 77°F (15°C to 25 °C), Recommended Humidity: 40% to 60%

Palmcorder

- Wrap it with a soft cloth to prevent dust from getting into the Palmcorder.
- Do not leave the Palmcorder in places that expose it to high temperature.

Battery

- Extremely high temperatures or low temperatures will shorten the life of the Battery.
- If the Battery is kept in smoky or dusty places, the terminals may rust and cause malfunctions.
- Do not allow the Battery terminals to come in contact with metal objects (such as necklaces, hairpins, etc.) This can result in a short circuit or heat generation and, if you touch the Battery in this condition, you may be badly burned.
- Store the Battery in a completely discharged state. To store the Battery for a long period of time, we recommend you charge it once every year and store it again after you completely use up the charged capacity.

Cassette

- Before storing it, rewind the tape to the beginning. If the Cassette is left for more than 6 months with the tape stopped midway, the tape sags (although it depends on the storage condition.) Be sure to rewind to the beginning.
- Store the Cassette in its case. Dust, direct sunlight (ultraviolet rays), or humidity may damage the tape. Dust contains hard mineral particles, and dusty Cassettes damage the heads of the Palmcorder and other components. Develop a habit of returning the Cassette back to its case.
- Twice a year, wind the tape to the end and then rewind it to the beginning. If the Cassette is left for 1 year or longer without winding or rewinding, temperature and humidity changes may cause the Cassette to deform due to swelling, shrinking, and so forth. The wound tape may stick to itself.
- Do not place a Cassette near highly magnetic substances or equipment.
- The surface of tape is covered with extremely minute magnetic particles, upon which signals are recorded. Magnetic necklaces, toys, etc., have magnetic force that is stronger than you may normally expect, and they may erase the contents of a recording or may cause noise in images and sounds.

Card

- When the Card is being read, do not remove the Card, turn off the power, or subject it to vibration or impact.
- Do not leave the Card in places where there is high temperature or direct sunlight, or where electromagnetic waves or static electricity are easily generated.
- Do not bend or drop the Card. The Card or the recorded content may be damaged.
- After use, be sure to remove the Card from the Palmcorder.
- After use, store the supplied SD Memory Card in the enclosed bag.

LCD Monitor/Viewfinder/Lens Hood

LCD Monitor

- In a place with drastic temperature changes, condensation may take place on the LCD Monitor. Wipe it with soft dry cloth.
- If your Palmcorder is extremely cold when you turn its power on, the image on the LCD Monitor will be slightly darker than usual at first. However, as the internal temperature increases, it goes back to the normal brightness.

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Extremely high precision technology is employed to produce the LCD Monitor screen featuring a total of approximately 110,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

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Viewfinder

- Do not direct the Viewfinder or Lens to the sun. Internal components may be seriously damaged.
- When the Palmcorder is used with a large capacity Battery attached to it, it is not practical to look in the Viewfinder from behind the Battery. In this case, lift up the Viewfinder to an easy-to-see angle.

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Extremely high precision technology is employed to produce the Viewfinder screen featuring a total of approximately 113,000 pixels. The result is more than 99.99% active pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

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Lens Hood

- Do not attach other conversion lenses in front of the Lens Hood; there is no mount to be used for the attachment.
- When attaching the Filter Kit (not supplied), attach it on the inside of the lens hood without removing the lens hood.
- When you want to attach a Tele Conversion Lens (not supplied) or a Wide Conversion Lens (not supplied), be sure to first remove the lens Hood by turning it counterclockwise.
- If you push the [W/T] Lever toward [W] during recording with the filter or conversion lens attached to the Palmcorder, 4 corners of the image may become dark (vignetting). For details, please refer to the operating instructions for your accessories.
- Be sure to keep the Lens Hood attached to the Palmcorder so as to shut out unnecessary light.

Explanation of Terms

Digital Video System

In a digital video system, images and sounds are converted into digital signals and recorded on a tape. This complete digital recording is capable of recording and playback with minimal image and sound deterioration.
In addition, it automatically records data, such as Time Code and date/time, as digital signals.

Compatibility with S-VHS or VHS Cassettes

Because this Palmcorder employs a digital system for recording image and sound data, the cassette is not compatible with conventional S-VHS or VHS video equipment that employs an analog recording system.
The size and shape of the Cassettes are also different.

Compatibility with Output Signals

Because AV signal output from the AV signal output jack is analog (the same as conventional video systems), this Palmcorder can be connected with S-VHS or VHS VCR or a TV for playback. **(➜ 44)**

Focus

Auto Focus Adjustment

The Auto Focus System automatically moves the internal focusing lens forward or backward and adjusts the focus so that the subject can be seen clearly.
However, the Auto Focus System does not function properly for the following subjects or under the following recording conditions.

Please use the Manual Focus Mode instead.

1) **Recording a subject whose one end is located closer to the Palmcorder and the other end farther away from it**
   - Because Auto Focus makes adjustments at the center of an image, it may be impossible to focus on a subject that is located in both foreground and background.
2) **Recording a subject behind dirty or dusty glass**
   - Because the focus is on the dirty glass, the subject behind the glass will not be in focus.
3) **Recording a subject in dark surroundings**
   - Because the light information that comes through the lens decreases considerably, the Palmcorder may not focus correctly.
4) **Recording a subject that is surrounded by objects with glossy surfaces or by highly reflective objects**
   - Because the Palmcorder focuses on the objects with glossy surfaces or on highly reflective objects, the recording subject may become blurry.
5) **Recording a fast-moving subject**
   - Because the focus lens inside moves mechanically, it may not be able to keep up with the fast-moving subject.
6) **Recording a subject with little contrast**
   - Because the Palmcorder achieves focus based upon the vertical lines of an image, a subject with little contrast, such as a white wall, may become blurry.

White Balance Adjustment

Depending on the type of light source, the colors recorded by the Palmcorder may be affected. In some cases, images may be recorded with bluish or reddish hue. To minimize the effect of light on the subject's color, what is called White Balance Adjustment becomes necessary.

White Balance Adjustment

White Balance Adjustment recognizes the color of light and makes adjustment so that the white color will become pure white.

Auto White Balance Adjustment

This Palmcorder stores settings that are optimal for several kinds of general light sources. The Palmcorder determines the hue of light that it receives through the lens and White Balance Sensor, thereby judging the recording condition, and selects the closest hue setting. This function is called Auto White Balance Adjustment.
However, since white balance settings for only certain kinds of light sources are stored, the Auto White Balance function does not operate properly when recording occurs under light that is out of the range of the setting values.

Time Code

Time Code signals are data that indicate time measured in hours, minutes, seconds, and frames (30 frames per second.) If this data is included in a recording, an address is assigned to each image on the tape.

- The Time Code is automatically recorded as a part of the sub-code at each recording.
- When a new (previously unrecorded) Cassette is inserted, the Time Code automatically starts from zero. If a recorded Cassette is inserted, the Time Code picks up from the point where the last scene was recorded. (In this case, when the Cassette is inserted, the zero display [0h00m00s00f] may appear, but the Time Code starts from the previous value.)
- The Time Code cannot be reset to zero.
- Unless the Time Code is continuously recorded from the beginning of a tape, accurate editing may not be possible. To ensure that the Time Code will be recorded with no breaks, we recommend the use of the Camera Search Function **(➜ 20)** or the Blank Search Function **(➜ 30)** before recording a new scene.

Memory Stop Function

The Memory Stop Function is useful for the following operations.

Rewinding or fast-forwarding a tape to a desired position

1 **Set [DISPLAY SETUP] >> [C.DISPLAY] >> [MEMORY].**

2 **Reset the Tape Counter to zero at the tape position from which you want to play it back later. (➜ 10, 16)**

3 **Start playback or recording.**

4 **When playback or recording is over: slide the [OFF/ON/MODE] Switch from [ON] to put the Palmcorder in the VCR Mode.**
- The [VCR] Lamp lights up.

5 **Rewind the tape.**
- The tape automatically stops approximately at the position where the counter was set to zero.

Stopping editing automatically during audio dubbing

1 **Set [DISPLAY SETUP] >> [C.DISPLAY] >> [MEMORY].**

2 **Reset the Tape Counter to zero at the position where you want to stop editing.**

3 **Play back the still pictures where you want to start audio dubbing.**

4 **Start audio dubbing. (➜ 34)**
- Audio dubbing automatically stops at the position where the counter was set to zero.

Specifications

Digital Palmcorder	Information for your safety
Power Source:	DC 7.2 V/7.8V
Power Consumption:	6.5 W (REC mode)

Recording Format:	Mini DV (Consumer-use Digital Video SD Format)
Tape Used:	6.35 mm digital video tape
Recording/Playback Time:	SP: 80 min.; LP: 120 min. (with DVM80)
Video	
Recording System:	Digital Component
Television System:	EIA Standard: 525 lines 60 Fields NTSC color signal
Audio	
Recording System:	PCM Digital Recording 16 bit (48 kHz/2 track), 12 bit (32 kHz/4 track)
Image Sensor:	1/3.8-inch CCD Image Sensor
Lens:	Auto Iris, F1.8, Focal Length; 3.85–38.5 mm, Macro (Full Range AF)
Filter Diameter:	43 mm
Zoom:	10:1 Power Zoom
Monitor:	2.5-inch LCD
Finder:	Color Electronic Viewfinder
Microphone:	Stereo
Speaker:	1 round speaker 20 mm
Standard Illumination:	1,400 lx
Minimum Required Illumination:	12 lx
Video Output Level:	1.0 Vp-p, 75 ohm
S-Video Output Level:	Y Output: 1.0 Vp-p, 75 ohm C Output: 0.286 Vp-p, 75 ohm
Audio Output Level:	316 mV, 600 ohm
Video Input Level:	1.0 Vp-p, 75 ohm
S-Video Input Level:	Y Input: 1.0 Vp-p, 75 ohm C Input: 0.286 Vp-p, 75 ohm
Audio Input Level (Line):	316 mV, 10 kohm or more
Mic Input:	Mic sensitivity -50 dB (0 dB = 1 V/Pa, 1 kHz) (Stereo mini jack)
Digital Still Picture:	Digital Still Picture Output, Control Signal Input/Output (Transfer rate: max. 115 kbps)
USB:	Card reader/writer function, USB 1.1 compliant (max. 12 Mbps) No copyright protection support
Digital Interface:	DV Input/Output Terminal (i.LINK, 4-pin)
Dimensions:	2-5/8(W)× 3-3/8 (H)× 6-5/8 (D) inch 76 (W)× 87 (H)× 199 (D) mm
Weight:	1.21lbs. (0.64 kg) (without Battery and DV cassette)
Operating Temperature:	32 °F–104 °F (0 °C–40 °C)
Operating Humidity:	10%–80%

Card Memory Functions	
Recording Media:	SD Memory Card, MultiMediaCard
Image Compression:	JPEG
Video Compression:	MPEG4
Sound Compression:	G.726

Maximum Number of pictures that can be recorded on the supplied SD Memory Card

When the size of pictures is [1280×960]	
FINE:	approx. 8 pictures
NORMAL:	approx. 14 pictures
ECONOMY:	approx. 20 pictures

When the size of pictures is [640×480]	
FINE:	approx. 45 pictures
NORMAL:	approx. 95 pictures
ECONOMY:	approx. 190 pictures

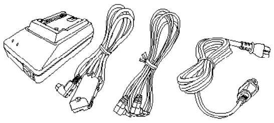
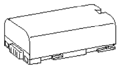
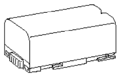
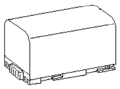
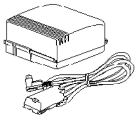
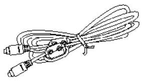
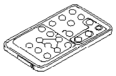
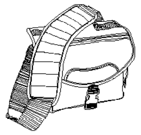
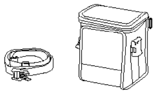
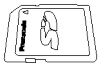
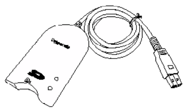
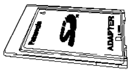
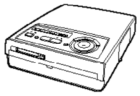
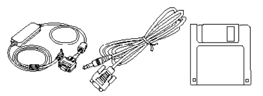
- When you record in one Memory Card using various modes (FINE, NORMAL, ECONOMY), the maximum number of images available will not exceed the indications stated above.
- The indicated Maximum Number of pictures that can be recorded is an approximate calculation. The number of recordable still pictures on the SD Memory Card may differ depending on the subject.

AC Adaptor	Information for your safety
Power Source:	AC 110–240 V, 50/60 Hz
Power Consumption:	18 W 1 W (When not in use.)
DC Output:	DC 7.8 V, 1.4 A (Palmcorder Operation) DC 8.4 V, 1.2 A (Battery Charging)

Dimensions:	2-3/4 (W)× 1-3/4 (H)× 4-9/16 (D) inch 70 (W)× 45 (H)× 116 (D) mm
Weight:	0.363lbs. (0.165 kg)

Weight and dimensions shown are approximate.
Designs and specifications are subject to change without prior notice.

Palmcorder Accessory System

Accessory#	Figure	Description
PV-DAC11A (For USA) PV-DAC11A-K (For Canada)		AC Adaptor with AC Cable and DC Cable
*CGR-D08A/1B (Replaces *CGR-D120A/1B)		800mAH/ Rechargeable Lithium Ion Battery Pack
*CGR-D16A/1B (Replaces *CGR-D220A/1B)		1600mAH/ Rechargeable Lithium Ion Battery Pack
*CGP-D28A/1B		2800mAH/Rechargeable Lithium Ion Battery Pack
*CGR-D53A/1K (Replaces *CGR-D815A/1B)		5300mAH/Rechargeable Lithium Ion Battery Pack
PV-DDC9 (For USA) PV-DDC9-K (For Canada)		DV Interface Cable (i.LINK) (4-pin to 4-pin)
PV-DRC9 (For USA) PV-DRC9-K (For Canada)		IR Remote Control
PV-H150 (USA only)		Carrying Case
PV-H210 (USA only)		Leather Carrying Case
RP-SD064BPPA RP-SD032BPPA RP-SD016BPPA		64 MB SD Memory Card 32 MB SD Memory Card 16 MB SD Memory Card
BN-SDCAPE/1B		USB Reader/Writer for SD Memory Card (compatible with MultiMediaCard)
BN-SDABPE/1B		SD PCMCIA Adaptor (compatible with MultiMediaCard)
PV-PD2100 (USA only)		Digital Video Printer
PV-DRS2		PC Connection Unit (Includes RS-232C connection cables and PHOTOVU LINK Software)

*Please refer to page 12, concerning the battery charging time and available recording time.

***NOTE: Accesories and/or model numbers may vary by country. Please consult you local dealer.**

Palmcorder Accessory Order Form (For USA Customers)

Please photocopy this form when placing an order.

1. Palmcorder Model # ______________

2. Items Ordered

Accessory #	Description	Price Each	Quantity	Total Price
			Subtotal	
			Your State & Local Sales Tax	
			Shipping & Handling	6.95
			Total Enclosed	

3. Method of payment (check one)

☐ Check of Money Order enclosed (NO C.O.D.SHIPMENTS)
☐ VISA Credit Card # ______________
☐ MasterCard Expiration Date ______________
☐ Discover Customer Signature ______________

Make Check or Money Order to: PANASONIC ACCESSORIES

(Please do not send cash)

4. Shipping information (UPS delivery requires complete street address)

Ship To:
Mr.
Mrs.
Ms. ______________
First Last
____
Street Address
____
City State Zip

Phone#:
Day ( ) ______________
Night ( ) ______________

TO OBTAIN ANY OF OUR PALMCORDER ACCESSORIES YOU CAN DO ANY OF THE FOLLOWING:
VISIT YOUR LOCAL PANASONIC DEALER
OR
CALL PANASONIC'S ACCESSORY ORDER LINE AT 1-800-332-5368
[6 AM-5 PM M-F, 6 AM-10:30 AM SAT, PACIFIC TIME]
OR
MAIL THIS ORDER TO: PANASONIC SERVICES COMPANY ACCESSORY ORDER OFFICE
20421 84th Avenue South Kent, WA. 98032

In CANADA, please contact your local Panasonic dealer for more information on Accesories.

Before Requesting Service

(Problems and Solutions)

If you are experiencing one of the following problems with your Digital Palmcorder, it may be something you can correct yourself. Check the list below for Problems and Solutions.

Problems	Solutions
The Palmcorder power cannot be turned on.	Is the power source connected correctly?
The Palmcorder power turned off automatically.	If you leave the Palmcorder in Recording Pause Mode for more than 5 minutes, the power is turned off automatically to protect the tape and to save the Battery power.
The Palmcorder power does not stay on long enough.	Is the Battery low? Charge the Battery or attach a fully charged Battery.
Something is wrong with the Palmcorder's operation. **The Palmcorder is turned on but no functions operate.**	Press the [RESET] Button on the Palmcorder with a pointed object. If this does not solve the problem, first disconnect the power supply and wait for a minute or so, and then reconnect the power supply to turn the power back on. (If the above operation is performed when the [ACCESS] Lamp of the Card Slot is lighting, the data of the Card may be damaged.)
Battery runs down quickly.	●Is the Battery fully charged? Charge it with the AC Adaptor. ●Are you using the Battery in an extremely cold place? In cold places, the operating time of the Battery becomes shorter. ●Has the Battery worn out? If the operating time is still too short even after the Battery is fully charged, the Battery has worn out.
The Battery cannot be charged.	If the DC Cable is connected to the AC Adaptor, charging cannot be performed. Disconnect the DC Cable.
Recording does not start although power is supplied to the Palmcorder and the Cassette is correctly inserted.	●Is the accidental erasure protection tab on the Cassette open? If it is open (set to [SAVE]), recording cannot be performed. ●Is the tape wound to the end? Insert a new Cassette. ●Is the Palmcorder power turned on? ●Is the [CAMERA] Lamp on? If the [CAMERA] Lamp is not on, no recording function can be operated. ●Has condensation occurred? Wait until the [DEW DETECTED] Indication disappears.
Audio dubbing cannot be performed.	●Is the accidental erasure prevention slider on the Cassette open? If it is open (set to [SAVE]), recording cannot be performed. ●Are you attempting to edit a tape portion that was recorded in LP Mode? LP Mode does not allow audio dubbing to operate.
The Time Code becomes inaccurate.	The Time Code Indication counter may not be constant in the reverse direction in Slow Motion Playback Mode, but this is not a malfunction.
The Remaining Tape Time Indication disappears.	When you record still pictures in PhotoShot Mode, the Remaining Tape Time Indication may disappear temporarily. However, it reappears when the Palmcorder is set back to Normal Recording Mode.

If you are experiencing one of the following problems with your Digital Palmcorder, it may be something you can correct yourself. Check the list below for Problems and Solutions.

Problems	Solutions
The Remaining Tape Time Indication does not match the actual remaining tape time.	● If scenes of less than 15 seconds are continuously recorded, the remaining tape time cannot be displayed correctly. ● In some cases, the Remaining Tape Time Indication may show remaining tape time that is 2 to 3 minutes shorter than the actual remaining tape time.
Video cannot be played back even when the [▶] Button is pressed.	Is the [VCR] Lamp on? If the [VCR] Lamp is not on, the playback function cannot be used.
Mosaic-like noise patterns appear on images during Cue, Review or Slow Motion Playback.	This phenomenon is characteristic of digital video systems. It is not a malfunction.
Although the Palmcorder is correctly connected to a TV, playback images cannot be seen.	Have you selected Video Input on the TV? Please read the operating instructions of your TV and select the input that matches the input jacks used for the connection.
Playback image is not clear.	Are the heads of the Palmcorder dirty? If the heads are dirty, playback image will not be clear.
No sound is played back from the built-in speaker or headphones of the Palmcorder.	Is the volume too low? During playback, continue pressing the [PUSH] Dial until the [VOLUME] Indication appears. Then, rotate the [PUSH] Dial to adjust the volume.
Different sounds are reproduced at the same time.	[AUDIO] on the [PLAYBACK FUNCTIONS] Sub-Menu of the [VCR FUNCTIONS] Main-Menu has been set to [MIX]. As a result, the original sound and sound that was recorded by audio dubbing are played back together. It is possible to reproduce the sounds separately.
The original sound was erased when audio dubbing was performed.	If you perform audio dubbing on a recording done in [16bit] Mode, the original sound will be erased. If you want to preserve the original sound, be sure to select [12bit] Mode at the time of recording.
Sounds cannot be played back.	● Although a Cassette with no audio dubbing is being played, is [AUDIO] on the [PLAYBACK FUNCTIONS] Sub-Menu of the [VCR FUNCTIONS] Main-Menu set to [ST2]? To play back a Cassette with no audio dubbing, [AUDIO] must be set to [ST1]. ● Is the Variable Speed Search Function working? Press the [▶] Button to cancel the Variable Speed Search Function.
The recorded picture on the Memory Card is not clear.	Do you have [PICTURE QUALITY] on the [CARD SETUP] Sub-Menu set to [ECONOMY]? If recording is made when set to [ECONOMY], a detailed image may show a mosaic pattern. Set the [PICTURE QUALITY] to [NORMAL] or [FINE]. **(➜ 36)**
Card PhotoShot playback pictures do not look normal.	There is a possibility that the images are damaged. To prevent the loss of image data, we recommend that you back images up on a Cassette or personal computer. **(➜ 39, 48)**
Even if a Card is formatted, it cannot be used.	There is a possibility of damage to either the Palmcorder or the Card. Please contact Panasonic Call Center.

Request for Service Notice (USA only)

Please photocopy this form when making a request for service notice.

In the unlikely event this product needs service.

Request for Service Notice:

- Please include your **proof of purchase.** (Failure to due so will delay your repair.)
- To further speed your repair, please provide an explanation of what wrong with the unit and any symptom it is exhibiting.

Mail this completed form and your Proof of Purchase along with your unit to:

Panasonic Services Company
1705 N. Randall Road
Elgin, IL. 60123-7847
Attn: Camcorder Repair

Please write the displayed above Self Diagnostic number here.

Limited Warranty (For USA Customers)

Panasonic Consumer Electronics Company,
Division of Matsushita Electric Corporation of America,
One Panasonic Way Secaucus, New Jersey 07094

Panasonic Sales Company,
Division of Matsushita Electric of Puerto Rico, Inc.
AVE. 65 de Infantería, Km. 9.5 San Gabriel
Industrial Park Carolina, Puerto Rico 00985

PANASONIC Video Products

Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair this product with new or refurbished parts, free of charge, in the USA or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of the original purchase):

PRODUCT	PARTS	LABOR	SERVICE	CONTACT NUMBER
CAMCORDER	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
VCR	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
A/V MIXER	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail In	1-800-211-PANA(7262)
MONITOR-VCR Combination	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90)DAYS CRT-NINETY (90)DAYS	Carry-In: 21" CRT and Smaller In-home or carry-in: 22" CRT and Larger	1-800-211-PANA(7262)

Batteries (if included) - New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days. Non-rechargeable batteries are not warranted.

Tape (if included) - New video cassette tape in exchange for a defective video cassette tape for five (5) days.

In-home, carry-in or mail-in service, as applicable, in the USA can be obtained during the warranty period by contacting a Panasonic Services Company (PASC) Factory Servicenter listed in the Service Directory. Or call toll free contact number listed above, to locate an authorized PASC Servicenter. Carry-in or mail-in service in Puerto Rico can be obtained during the warranty period by calling the Panasonic Sales Company telephone number listed in the Servicenter Directory.

This warranty is extended only to the original purchaser. A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered.

This warranty only covers failures due to defects in materials and workmanship which occur during normal use and does not cover normal maintenance, including, but not limited to, video and audio head cleaning.

The warranty does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a PASC Factory Servicenter or a PASC authorized Servicenter, or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO RECORDING MEDIA) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Consumer Affairs Department at the Panasonic Consumer Electronics Company address above.

SERVICE CALLS WHICH DO NOT INVOLVE DEFECTIVE MATERIALS OR WORKMANSHIP AS DETERMINED BY THE WARRANTOR, IN ITS SOLE DISCRETION, ARE NOT COVERED. COSTS OF SUCH SERVICE CALLS ARE THE RESPONSIBILITY OF THE PURCHASER.

warvid 8/8/2000

Servicenter List

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:
1-800-211-PANA (7262), Monday-Friday 9 am-9 pm; Saturday-Sunday 9 am-7 pm, EST.
or send e-mail to : consumerproducts@panasonic.com

Web Site: http://www.panasonic.com
You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Accessory Purchases:

1-800-332-5368 (USA Customer Orders Only)
Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032
(6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday; PST)
(Visa, MasterCard, Discover Card, American Express, Check)

Factory Servicenters Locations

CALIFORNIA
6550 Katella Avenue
Cypress, CA 90630

800 Dubuque Avenue
S. San Francisco,
CA 94080

3878 Ruffin Road
Suite A
San Diego, CA 92123

FLORIDA
3700 North 29th Avenue
Suite 102
Hollywood, FL 33020

GEORGIA
8655 Roswell Road
Suite 100
Atlanta, GA 30350

ILLINOIS
1709 North Randall Road
Elgin, IL 60123

MASSACHUSETTS
60 Glacier Drive
Suite G
Westwood, MA 02090

MINNESOTA
7850-12th Avenue South
Airport Business Center
Bloomington, MN 55425

OHIO
2236 Waycross Road
Civic Center Plaza
Forest Park, OH 45240

PENNSYLVANIA
2221 Cabot Blvd. West
Suite B
Langhorne, PA 19047

TEXAS
13615 Welch Road
Suite 101
Farmers Branch,
TX 75244

WASHINGTON
20425-84th Avenue
South
Kent, WA 98032

HAWAII
99-859 Iwaiwa Street
Aiea, Hawaii 96701
Phone (808) 488-1996
Fax (808) 486-4369

Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/ Factory Servicenter:
Ave. 65 de Infantera, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985
Phone (787)750-4300 Fax (787)768-2910

As of Sep.2001

Service in Canada: As per sevicenter listed in Canadian warranty information on page 76.

Limited Warranty

(For Canadian Customers)

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga, Ontario L4W 2T3

PANASONIC PRODUCT – LIMITED WARRANTY (For Canadian Customers)

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

Camcorder Product – One (1) year, parts and labour

LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, EXCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE

For product operation and information assistance, please contact your Dealer or our Customer Care Centre at:

Telephone #: (905) 624-5505   Fax #: (905) 238-2360   Web: www.panasonic.ca

For product repairs, please contact one of the following:

- Your Dealer who will inform you of an authorized Servicentre nearest you.
- Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca
- A Panasonic Factory Servicentre listed below:

Richmond, British Columbia
Panasonic Canada Inc.
12111 Riverside Way
Richmond, BC V6W 1K8
Tel: (604) 278-4211
Fax: (604) 278-5627

Calgary, Alberta
Panasonic Canada Inc.
6835-8th St. N. E.
Calgary, AB T2E 7H7
Tel: (403) 295-3955
Fax: (403) 274-5493

Mississauga, Ontario
Panasonic Canada Inc.
5770 Ambler Dr.
Mississauga, ON L4W 2T3
Tel: (905) 624-8447
Fax: (905) 238-2418

Lachine, Québec
Panasonic Canada Inc.
3075, rue Louis A. Amos
Lachine, QC H8T 1C4
Tel: (514) 633-8684
Fax: (514) 633-8020

CUSTOMER'S RECORD

Customer Name:____________________ **Model Number:** ____________________
Serial Number: ____
Date of Purchase:____
Dealer's Name: ____
Address: ____________________________ **Phone Number:**______________

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

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Solarization Mode 27, 32
Sound Volume 29
SP/LP Mode 19
Sports Mode 23
Spotlight Mode 23
Still Advance Playback 30
Strobe Mode 27, 32
Sub-Code 67
Surf & Snow Mode 23
Swing Mode 28, 33
■T
Time Code 67
Title 41
Trailing Effect Mode 27, 32
■U
USB Connection Kit 48
■V
Variable Speed Search 29
Video Flash 26
Video Head Clogging 65
Viewfinder 14
Voice Power Save 63
■W
White Balance 25, 67
Wind Noise Reduction 16
Wipe Mode 27, 32
■Z
Zoom 21, 22
Zoom Microphone 21

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P

LSQT0512A
F0102Nm0 (700 Ⓐ)

2 INTRODUCTION

2.1. INTRODUCTION

This service manual contains technical information which will allow service personnel´s to understand and service this model.Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

3 SERVICE CAUTION

3.1. HOW TO DISCHARGE THE CAPACITOR ON FLASH C.B.A.

CAUTION
Be sure to discharge the capacitor on Flash C.B.A. before disassembling.
CAUTION
Be careful of the high voltage circuit on Flash C.B.A. when servicing.

Method:

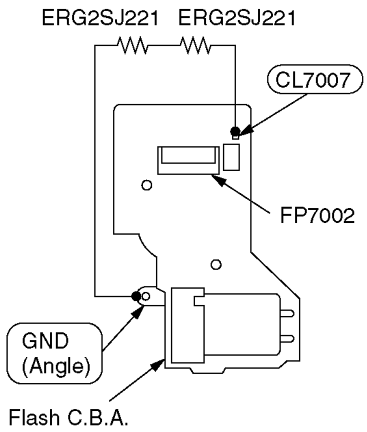
1.Prepare the 2 Resistors (ERG2SJ221:220 ohm/2w) for discharge.

Note:

Above 2 Resistors may be substituted with equivalent type.

2.Make short circuit using 2 Resistors between CL7007 and GND for 3 seconds as follows.

3.After discharging, confirm that the capacitor voltage is sufficiently lowered using a voltmeter



3.2. SERVICE EXTENSION CABLES.

This models is required the following extension cables for all connections.

Use the following extension cables when checking or adjusting individual circuit boards except module Parts.

Ref.	Part No.	Pin	Part Name	Connection	Q'ty
(1)	VFK1364	14	Flat Cable	FP1002 (Main) - Battery Catcher	1
(2)	VFK1442	21	Flat Cable	FP603 (Main) - FP801(EVF)	1
(3)	VFK0977	20	Flat Cable	FP3401 (Main) - SD/SHOE Flex.	1
(4)	VFK1491	27	Flat Cable	FP601 (Main) - FP903(Monitor)	1
(5)	VFK1364	14	Flat Cable	FP2206 (Main) - Side Case (R) Unit (Camera Operation Flex.)	1
(6)	VFK1492	26	Flat Cable	FP4002 (Main) - FP451(Gyro)	1
(7)	VFK1491	27	Flat Cable	FP4001 (Main) - FP7001(Flash)	1
(8)	VFK1364	14	Flat Cable	FP4001 (Main) - FP4901(Mic Unit)	1
(9)	VFK1460	20	Flat Cable	PS201 (Camera) - PP291(CCD Flex.)	1
(10)	VFK1459	39	Flat Cable	FP701 (Camera) - Lens Unit	1
(11)	VFK1442	21	Flat Cable	FP301 (Camera) - Side Case (R) Unit (VTR Operation Flex.)	1
(12)	VFK1582BD020	120	Flat Cable	PS3004 (Main) - PP301(Camera)	1
(13)	VFK1442	21	Flat Cable	FP2205 (Main) - Grip Flex.	1
(14)	VFK1441	8	Flat Cable	FP5001 (Main) - Cylinder (Head Amp)	1
(15)	VFK1440	10	Flat Cable	FP2202 (Main) - Cylinder (Drive)	1
(16)	VFK1443	18	Flat Cable	FP2203 (Main) - Mecha. Unit	1
(17)	VFK1443	18	Flat Cable	FP2201 (Main) - Capstan	1
(18)	VFK1441	8	Flat Cable	FP2204 (Main) - Loading Motor	1

How to use extension cables.

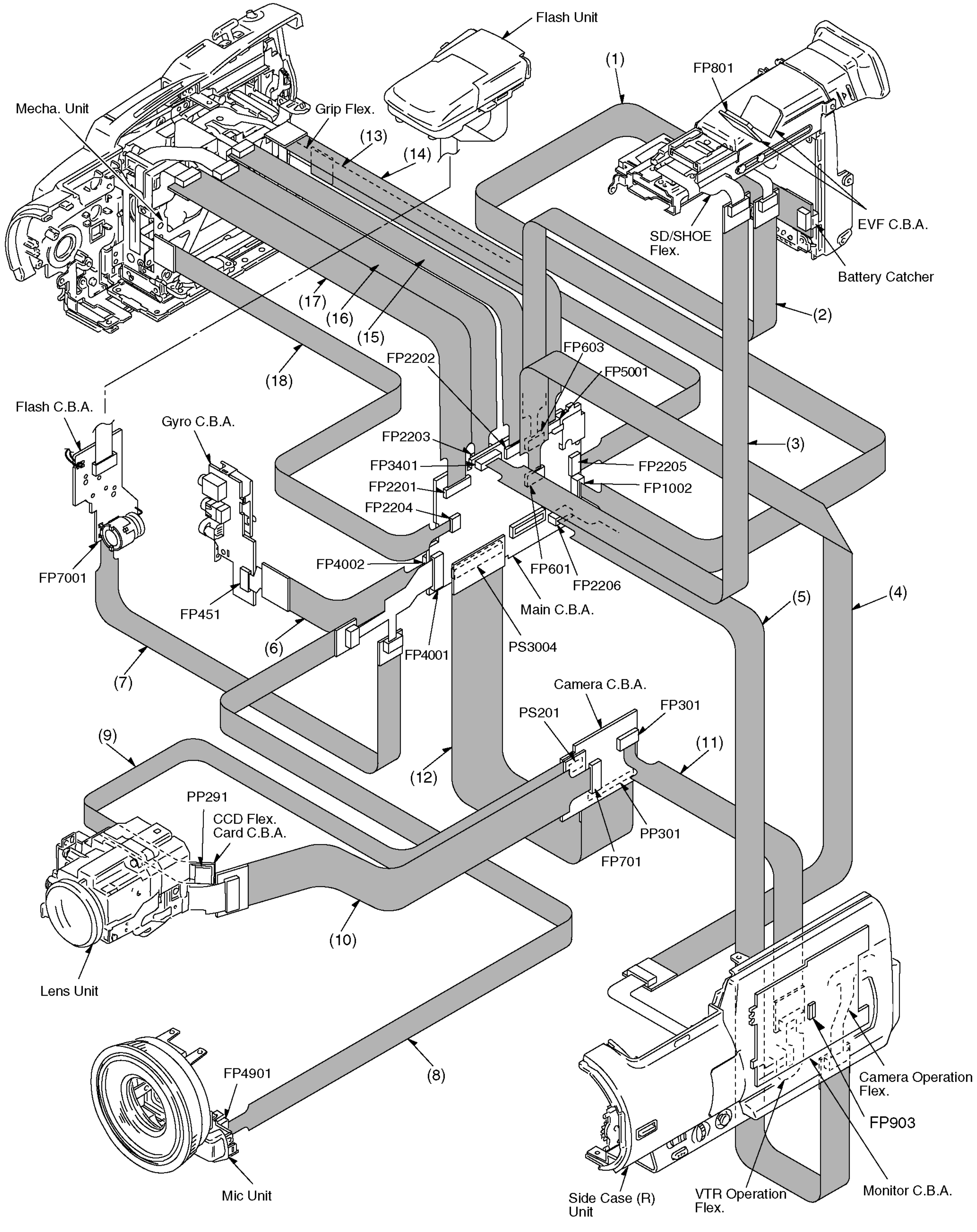
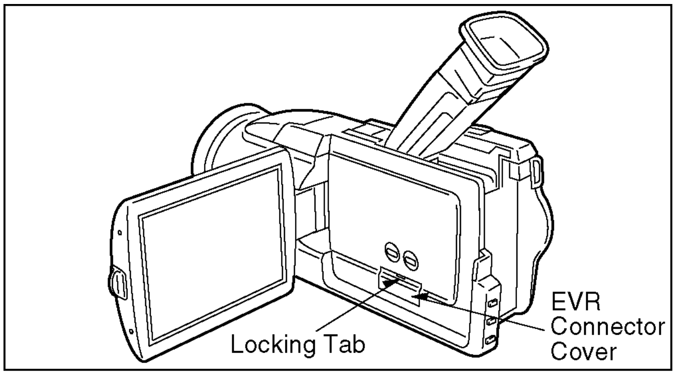

Flash Unit
Mecha. Unit
Grip Flex.
(13)
(14)
(1)
FP801
EVF C.B.A.
SD/SHOE Flex.
Battery Catcher
(2)
(17)
(16)
(15)
FP2202
FP603
FP5001
(18)
Flash C.B.A.
Gyro C.B.A.
FP2203
FP3401
FP2201
FP2204
FP2205
FP1002
(3)
FP4002
FP601
FP2206
FP7001
FP451
Main C.B.A.
(5)
(4)
(6)
FP4001
PS3004
(7)
Camera C.B.A.
PS201
FP301
(9)
(11)
(12)
PP291
CCD Flex.
Card C.B.A.
PP301
FP701
(10)
Lens Unit
FP4901
(8)
Camera Operation Flex.
FP903
Mic Unit
Side Case (R) Unit
VTR Operation Flex.
Monitor C.B.A.

Fig. T1-1

4 PREPARATION FOR ELECTRICAL ADJUSTMENT

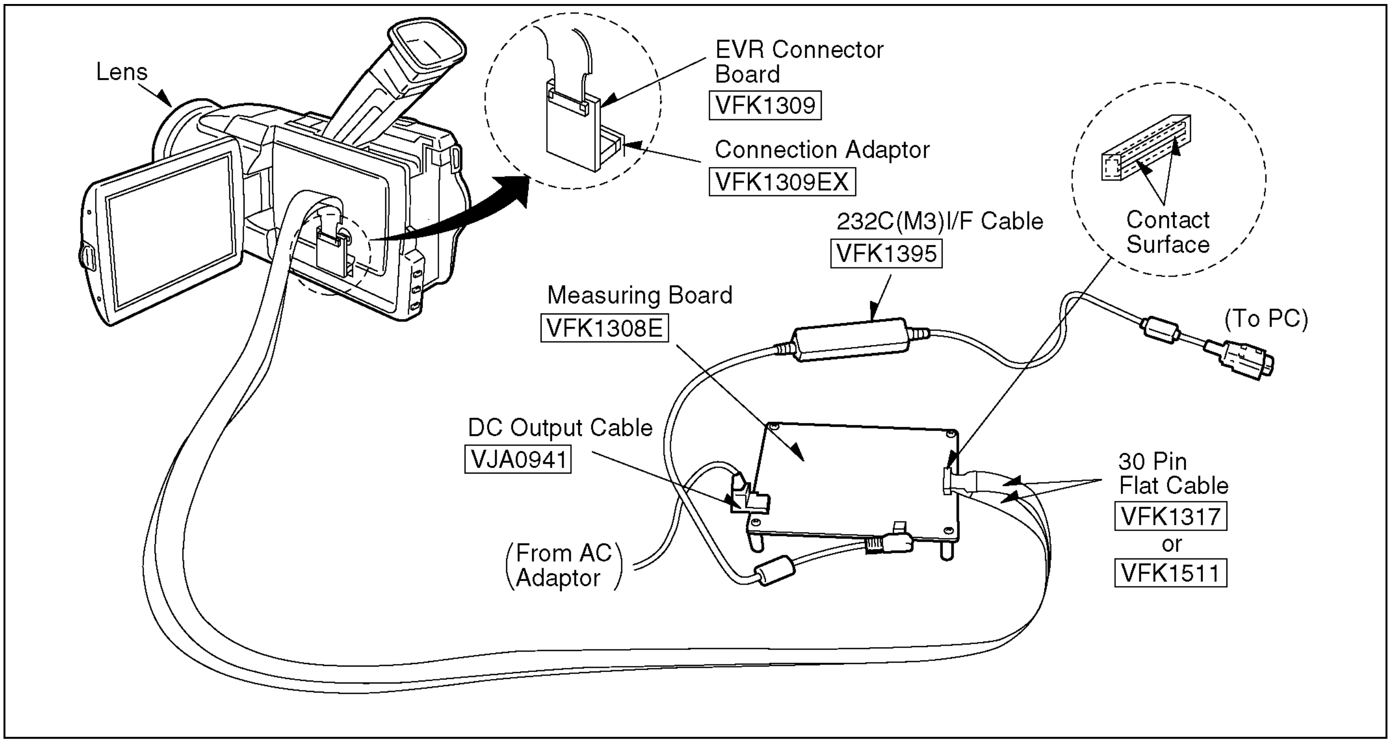
1. Unlock the locking tab and remove the EVR connector as shown in Fig. E1.
2. Then connect the following cables as shown in Fig. E2.



Locking Tab
EVR Connector Cover

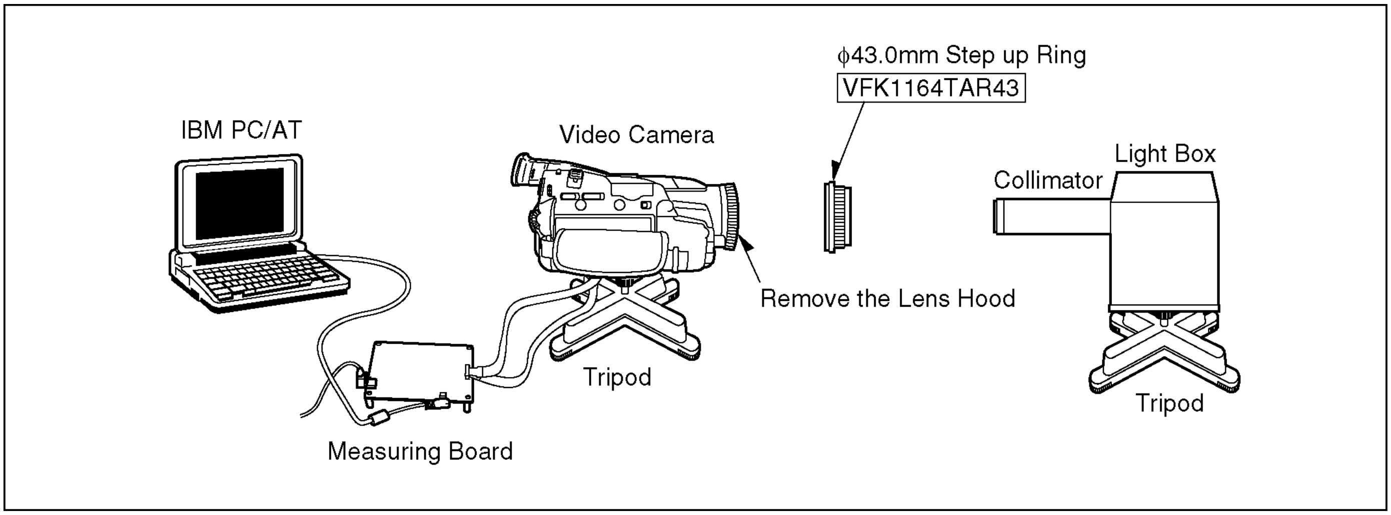
Fig. E1

Part No.	Part Name	Q'ty	Remarks
VFK1317 or VFK1511	30 Pin Flat Cable	2	200mm Type 300mm Type
VFK1395	232C(M3)I/F Cable	1	
VFK1308E	Measuring Board	1	
VFK1309	EVR Connector Board	1	
VJA0941	DC Output Cable	1	For AC Adaptor
VFK1164TAR43	Step up Ring	1	For Collimator
VFK1309EX	Connection Adaptor	1	



Lens
EVR Connector Board
VFK1309
Connection Adaptor
VFK1309EX
232C(M3)I/F Cable
VFK1395
Contact Surface
Measuring Board
VFK1308E
(To PC)
DC Output Cable
VJA0941
30 Pin Flat Cable
VFK1317
or
VFK1511
(From AC Adaptor)

Fig. E2



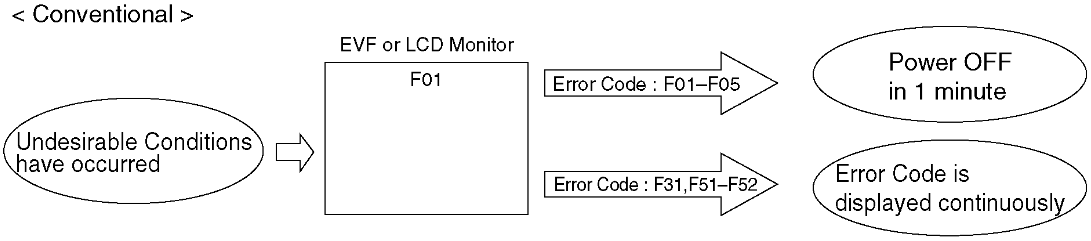
ϕ43.0mm Step up Ring
VFK1164TAR43
IBM PC/AT
Video Camera
Light Box
Collimator
Remove the Lens Hood
Tripod
Tripod
Measuring Board

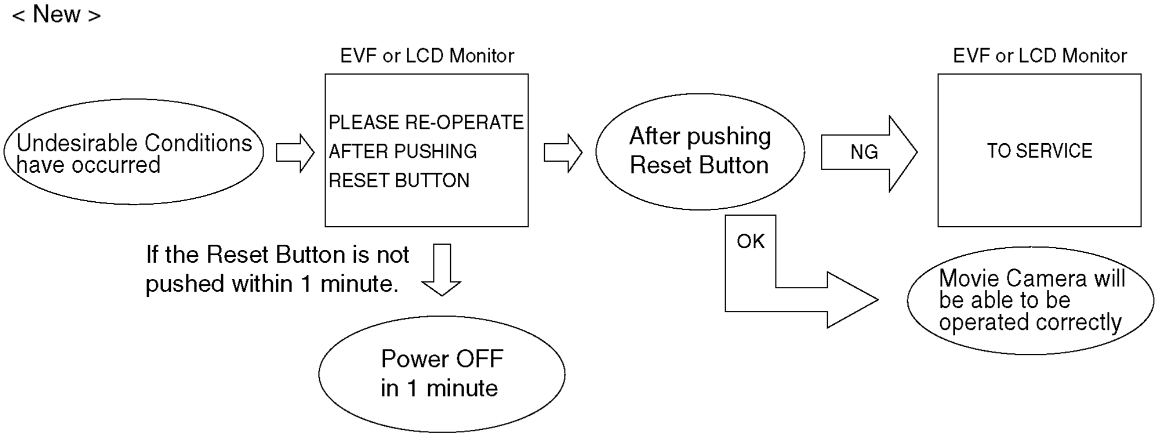
Fig. E3

5 SERVICE MODE

5.1. New Error Code Display

Conventionally, the error code has been displayed automatically on the EVF or LCD Monitor when undesirable conditions have occurred. With the New Error Code Display, the error code has not been displayed automatically as follows except some error codes F31(Data Transmission Error), U10(Dew) and U11(Head Clogging).


< Conventional >
Undesirable Conditions have occurred
EVF or LCD Monitor
F01
Error Code : F01–F05
Power OFF in 1 minute
Error Code : F31,F51–F52
Error Code is displayed continuously


< New >
Undesirable Conditions have occurred
EVF or LCD Monitor
PLEASE RE-OPERATE AFTER PUSHING RESET BUTTON
After pushing Reset Button
NG
EVF or LCD Monitor
TO SERVICE
OK
Movie Camera will be able to be operated correctly
If the Reset Button is not pushed within 1 minute.
Power OFF in 1 minute

Note:

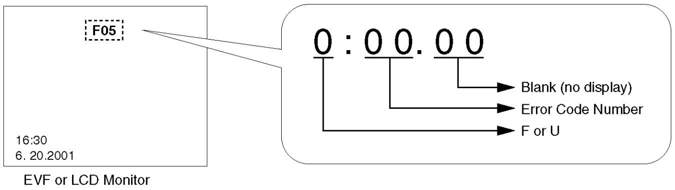
1. The only some error codes F31, U10 and U11 has displayed automatically on the EVF or LCD monitor as usual.
2. The Power LED also has been flashed for 1 min. when undesirable condetions have occurred.(See below)

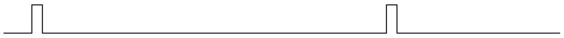
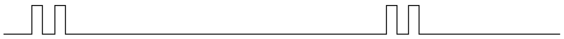
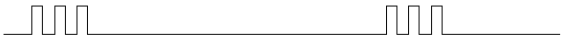
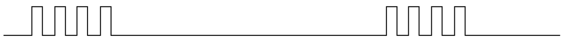
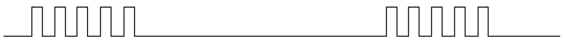
5.2. Viewing Error Code

When displaying the Error Code on the EVF or LCD Monitor, push the FADE/STOP and REC START/PAUSE buttons simultaneously for more 3 seconds.

Note:

When the cassette tape is inserted, this operation will not be worked.


F05
16:30
6. 20.2001
0 : 0 0. 0 0
Blank (no display)
Error Code Number
F or U
EVF or LCD Monitor

DISPLAY	CONDITION	POWER OFF TIMING / POWER LED FLASHING TIMING
F01	T-Reel Lock	After 1 minute flashing the LED 
F02	S-Reel Lock	After 1 minute flashing the LED 
F03	Unloading Lock	After 1 minute flashing the LED 
F04	Loading Lock	After 1 minute flashing the LED 
F05	Cylinder Lock	After 1 minute flashing the LED 
F31	Data Transmission Error	Not turning OFF
F51	Zoom Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
F52	Focus Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
U10	Dew Detection	After 18 seconds flashing the LED Power LED is flashed at 1 Hz timing
U11	Head Clogging	Not turning OFF

6 HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURE)

1. Remove the Side Case (R) Unit. (Refer to Disassembly Procedures.)
2. Unsolder the Lithium Battery “VSB0407” and then replace the new one. (See Fig. B1.)

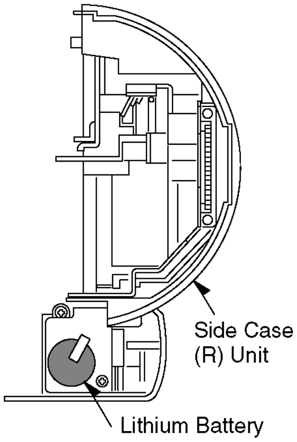


Fig. B1

Note:

The lithium battery is a critical component. (Type No.: VSB0407 Manufactured by Panasonic.)

It must never be subjected to excessive heat or discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacture.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

PRECAUTION

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.
Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

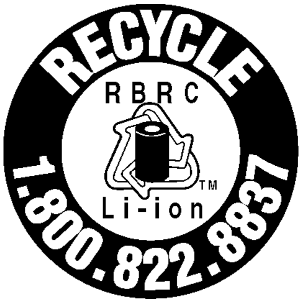
ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning má kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

7 HOW TO RECYCLE THE LITHIUM BATTERY



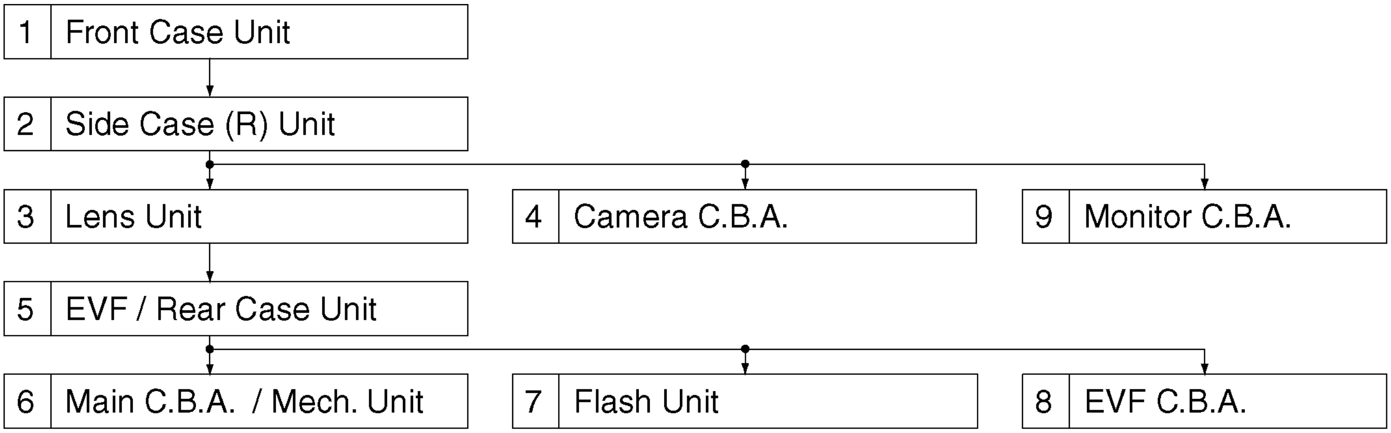
A lithium ion/polymer battey that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

L´appareil que vous vous étes procuré est alimenté par une battene au lithium-ion/lithium-polymére. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8 -BATTERY.

8 ADJUSTMENT PROCEDURES

8.1. DISASSEMBLE FLOW CHART

This flow chart indicates the disassembly steps the cabinet parts, C.B.A. and Mecha. Unit in order to access to be serviced. When reinstalling, perform the steps in the reverse order.


1 Front Case Unit
2 Side Case (R) Unit
3 Lens Unit
4 Camera C.B.A.
9 Monitor C.B.A.
5 EVF / Rear Case Unit
6 Main C.B.A. / Mech. Unit
7 Flash Unit
8 EVF C.B.A.

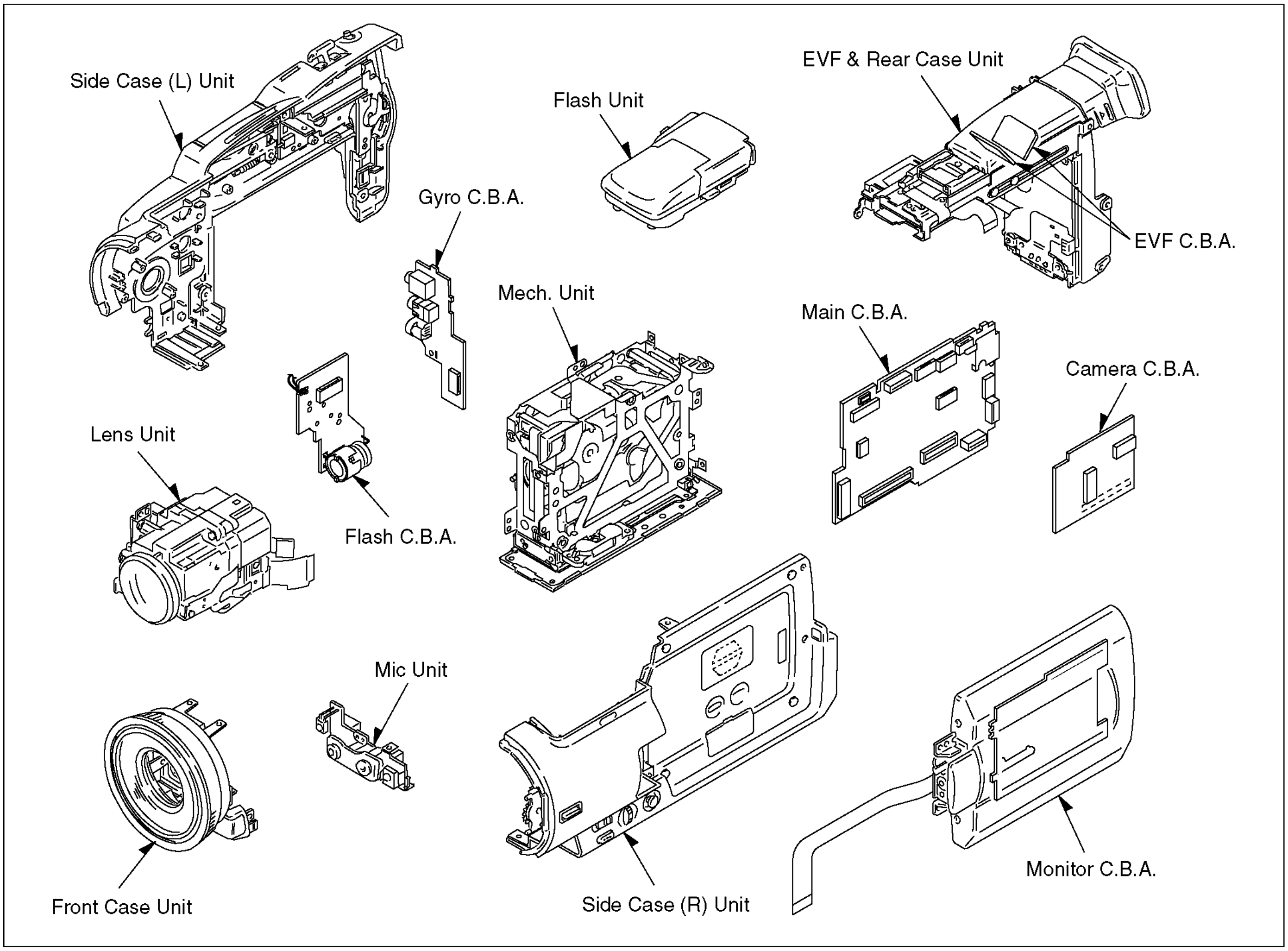

Side Case (L) Unit
Flash Unit
EVF & Rear Case Unit
Gyro C.B.A.
EVF C.B.A.
Mech. Unit
Main C.B.A.
Camera C.B.A.
Lens Unit
Flash C.B.A.
Mic Unit
Front Case Unit
Side Case (R) Unit
Monitor C.B.A.

Fig. F1

8.2. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

No.	Item/Part	Fig.	Removal (Screw & Other)
1.	Front Case Unit	Fig. D2	2-Screws (A/B)
		Fig. D3	2-Screws (C/D)
		Fig. D4	Open the Flash Light
		Fig. D5	2-Screws (E)
		Fig. D6	1-Connector FP4901 Remove the Front Case Unit
2.	Side Case (R) Unit	Fig. D7	1-Screw (F)
		Fig. D8	2-Screws (G)
		Fig. D9	1-Screw (H)
		Fig. D10	4-Screws (I)
		Fig. D11	2-Screws (J)
		Fig. D12	3-Connectors FP301/FP601/FP2206 Remove the Side Case (R) Unit
3.	Lens Unit	Fig. D13	1-Screw (K) 2-Connectors FP701/PS201 Remove the Lens Unit 1-Screw (L) Remove the Lens Frame Unit
4.	Camera C.B.A.	Fig. D14	1-Connector PS3004 Remove the Camera C.B.A.
5.	EVF/Rear Case Unit	Fig. D15	3-Screws (M)
		Fig. D16	1-Screw (N)
		Fig. D17	Be sure to discharge the capacitor on Flash C.B.A. 4-Connectors FP603 / FP1003 / FP3401 / FP7002 Remove the EVF/Rear Case Unit
		Fig. D18	1-Screw (O) Remove the Rear Case Unit
6.	Mech. Unit/Main C.B.A.	Fig. D19	2-Screws (P) 3-Connectors FP451/FP2205/FP4001 4-Tabs Remove the Mech. Unit/Main C.B.A.
		Fig. D20	5-Connectors FP5001 / FP2201 / FP2202 / FP2203 / FP2204 2-Tabs Remove the Gyro Flex. Cable Remove the Main C.B.A.
		Fig. D21	3-Screws (Q) Remove the Mech. Flame Unit
7.	Flash Unit	Fig. D22	Slide the EVF Unit 1-Screw (R) Remove the Flash Unit
8.	EVF C.B.A.	Fig. D23	2-Screws (S) Remove the EVF Unit
		Fig. D24	Remove the Eye Cap Unit 2-Tabs Remove the EVF Case (Upper)
		Fig. D25	2-Tabs 2-Connectors FP801/FP802 Remove the EVF C.B.A.
9.	Monitor C.B.A.	Fig. D26	4-Screws (T) 2-Tabs Remove the (R) Cover Unit
		Fig. D27	2-Screws (U) Remove the LCD Unit
		Fig. D28	6-Screws (V/W) 5-Tabs Remove the LCD Case (Upper)
		Fig. D29	1-Connector FP903 Remove the LCD Hinge Unit
		Fig. D30	1-Connector FP901 Unsolder 2 portions Remove the Monitor C.B.A.

If the card is inserted, take out it before disassembling

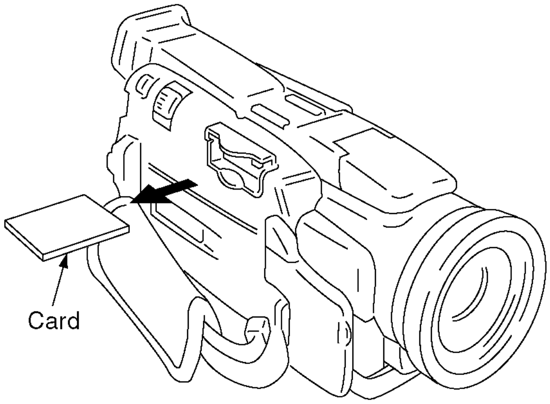


Fig. D1

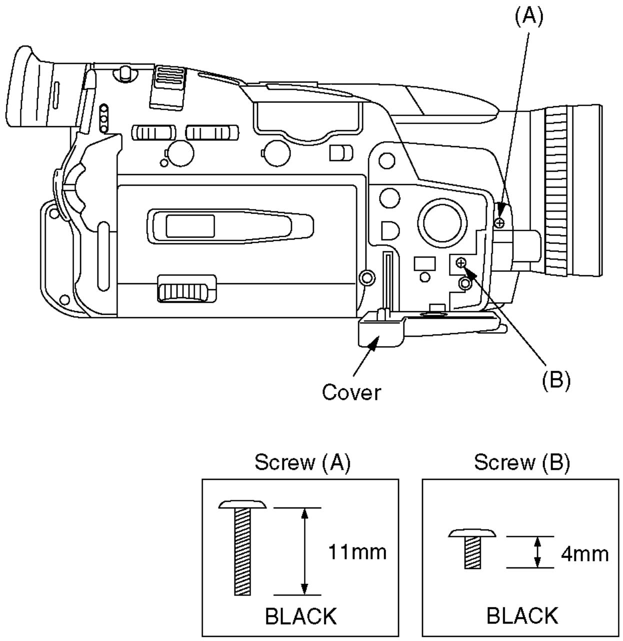


Fig. D2

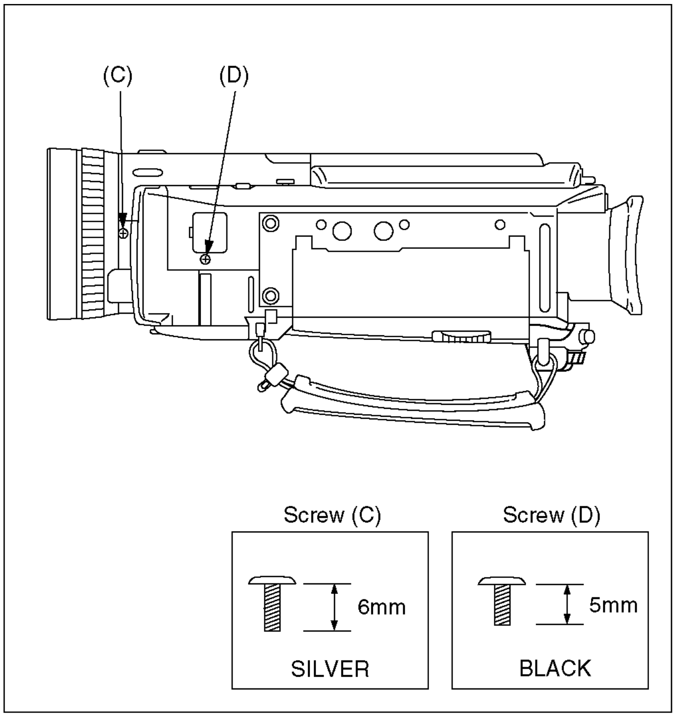

(C)
(D)
Screw (C)
6mm
SILVER
Screw (D)
5mm
BLACK

Fig. D3

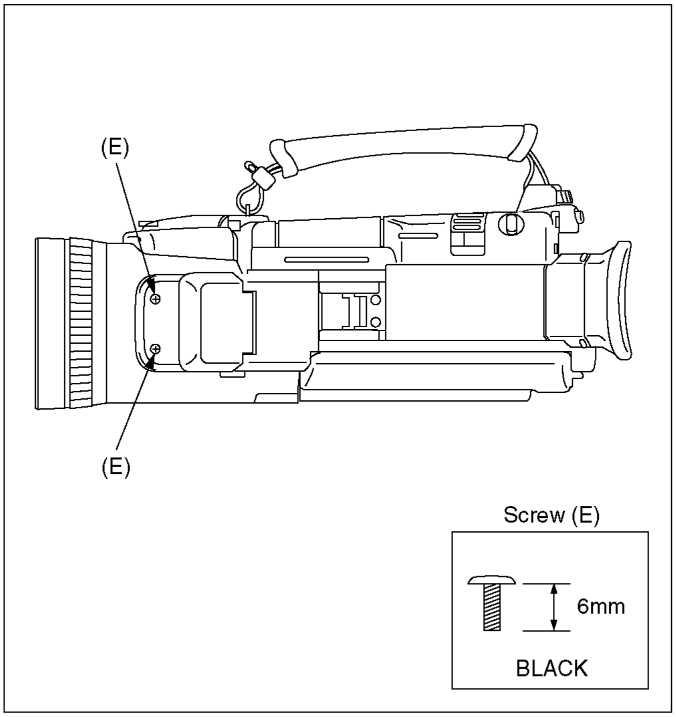

(E)
(E)
Screw (E)
6mm
BLACK

Fig. D5

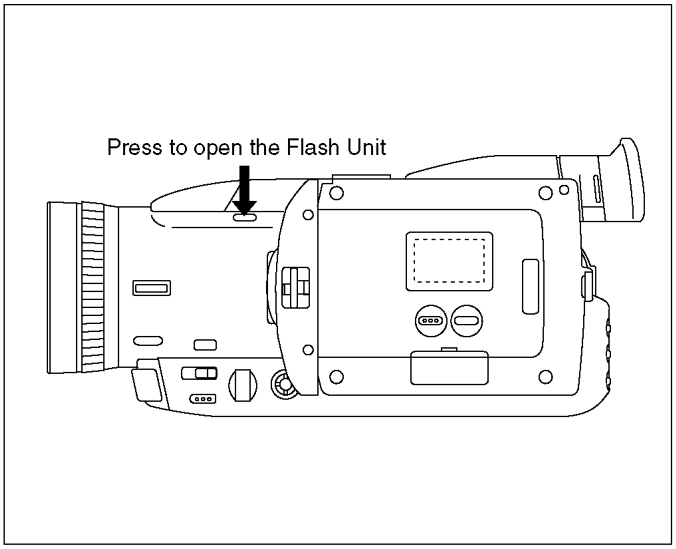

Press to open the Flash Unit

Fig. D4

Remove slowly the Front Unit to prevent damage of the Flexible cable.

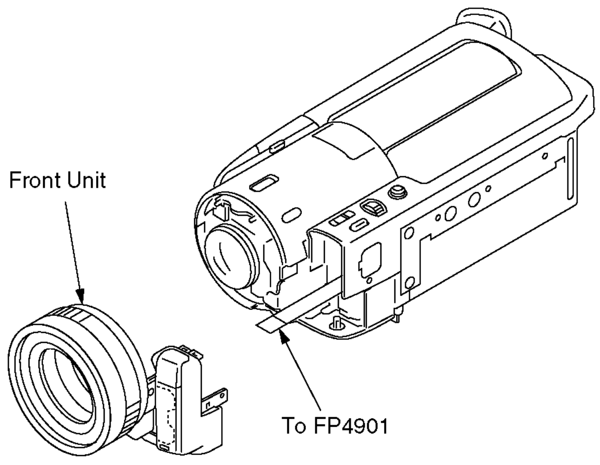

Front Unit
To FP4901

Fig. D6

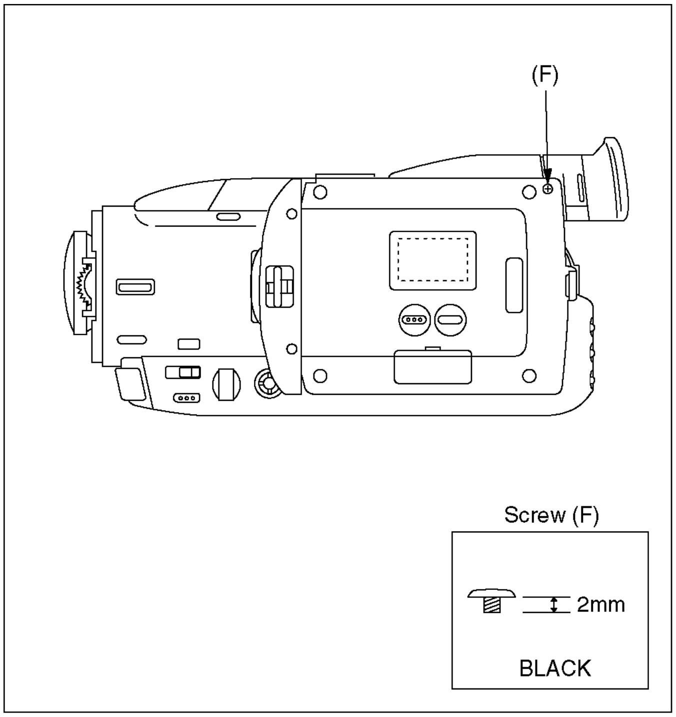

(F)
Screw (F)
2mm
BLACK

Fig. D7

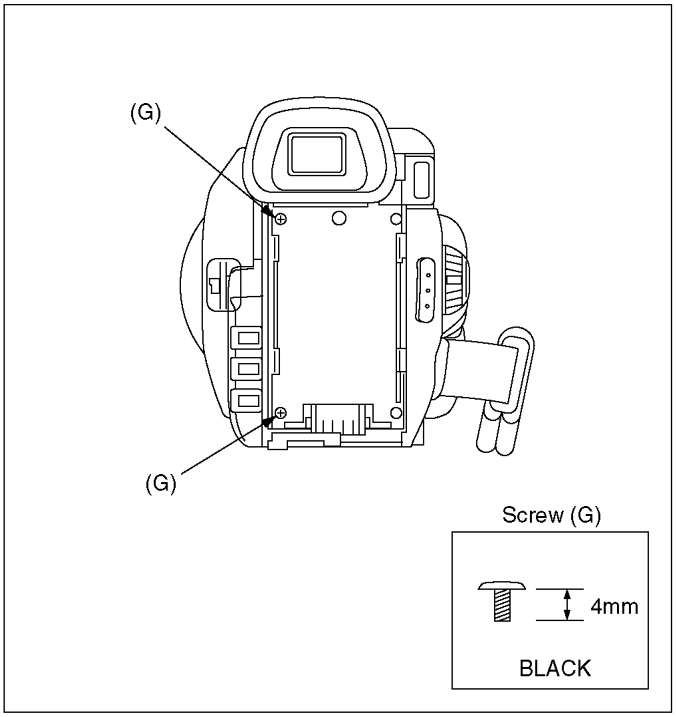

(G)
(G)
Screw (G)
4mm
BLACK

Fig. D8

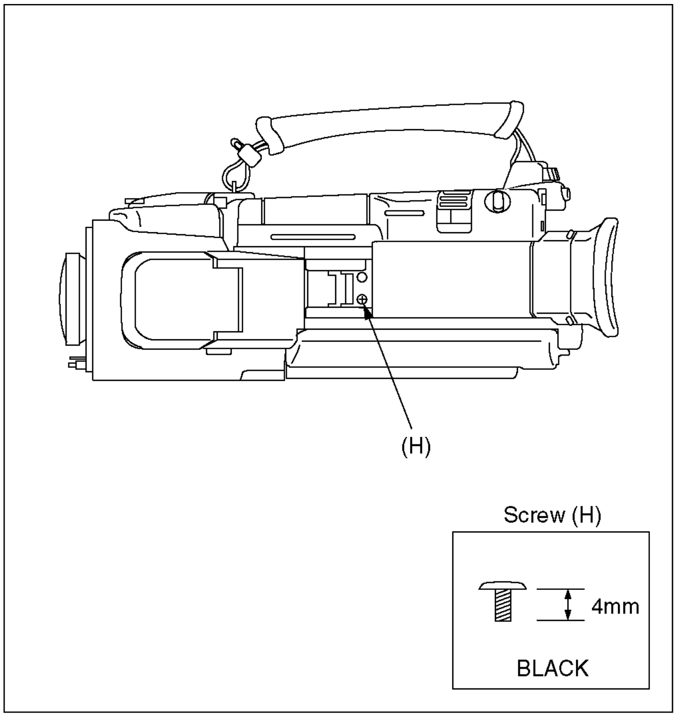

(H)
Screw (H)
4mm
BLACK

Fig. D9

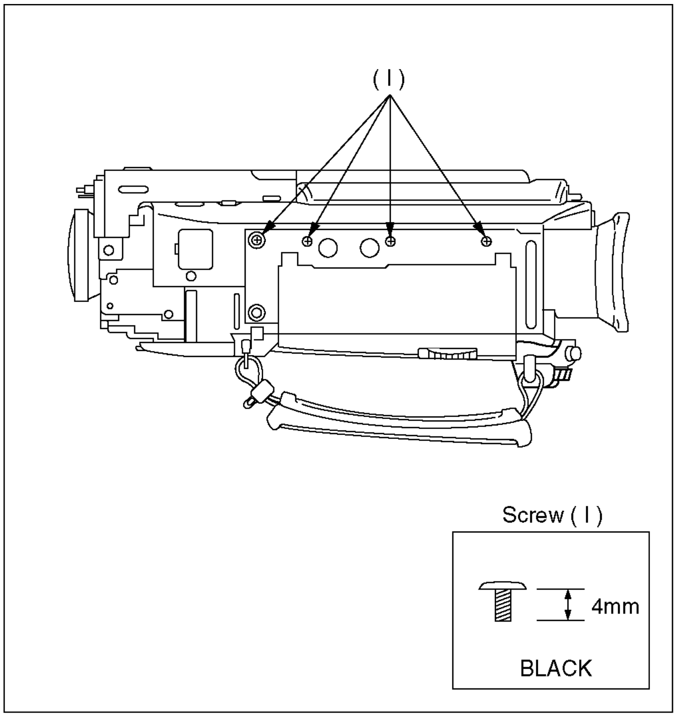

(I)
Screw (I)
4mm
BLACK

Fig. D10

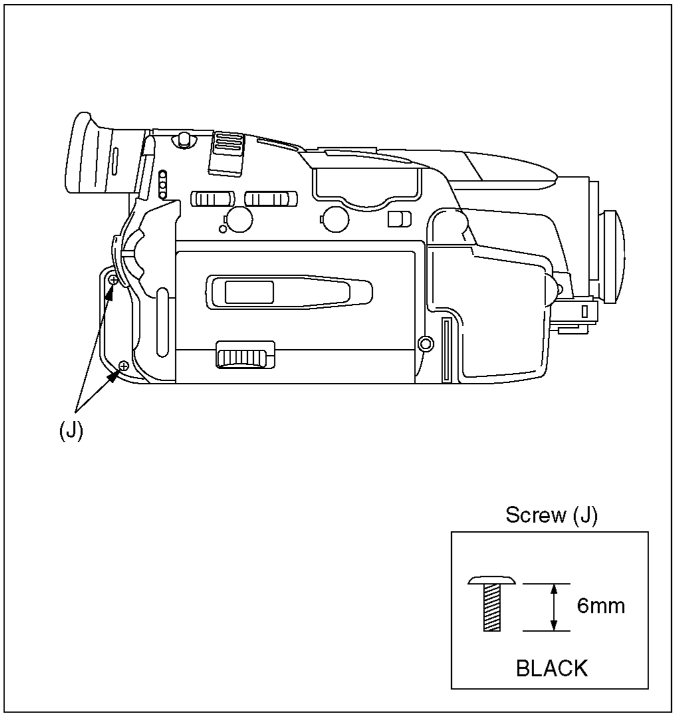

(J)
Screw (J)
6mm
BLACK

Fig. D11

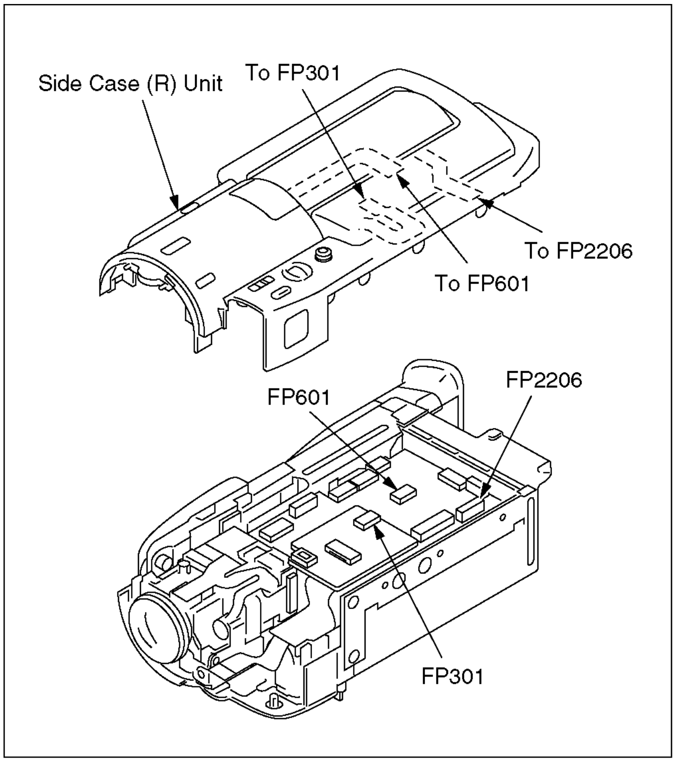

Side Case (R) Unit
To FP301
To FP2206
To FP601
FP601
FP2206
FP301

Fig. D12

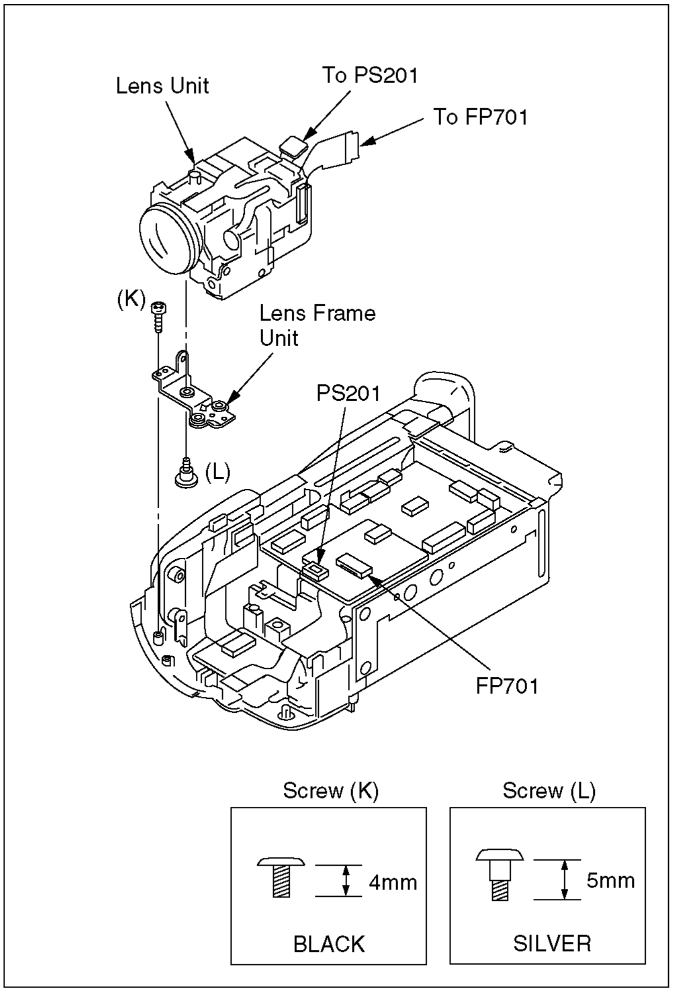

Lens Unit
To PS201
To FP701
(K)
Lens Frame Unit
PS201
(L)
FP701
Screw (K)
4mm
BLACK
Screw (L)
5mm
SILVER

Fig. D13

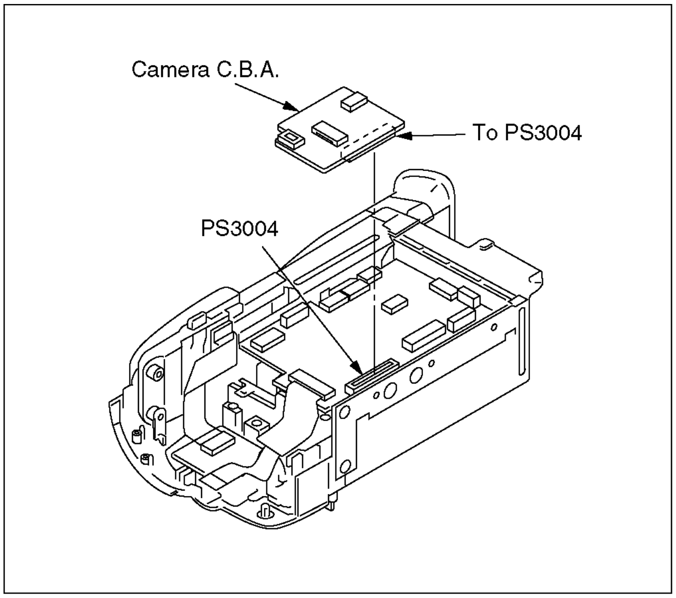

Camera C.B.A.
To PS3004
PS3004

Fig. D14

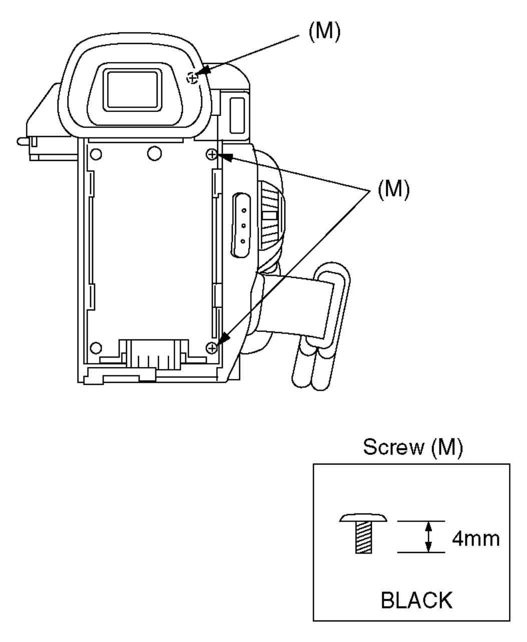

(M)
(M)
Screw (M)
4mm
BLACK

Fig. D15

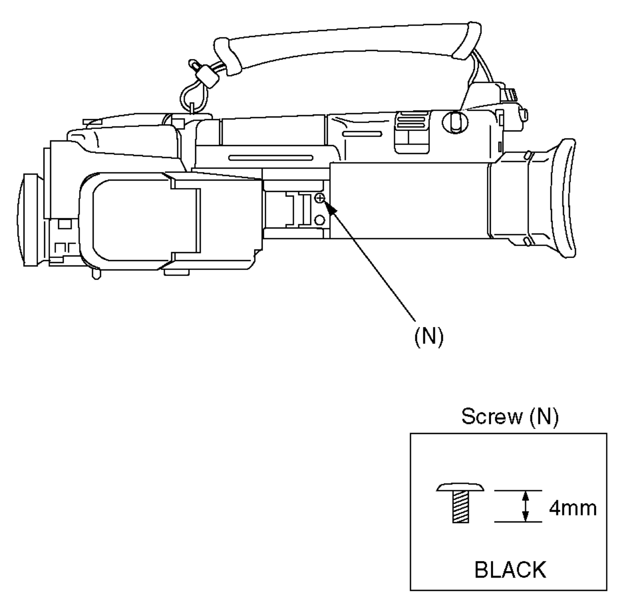
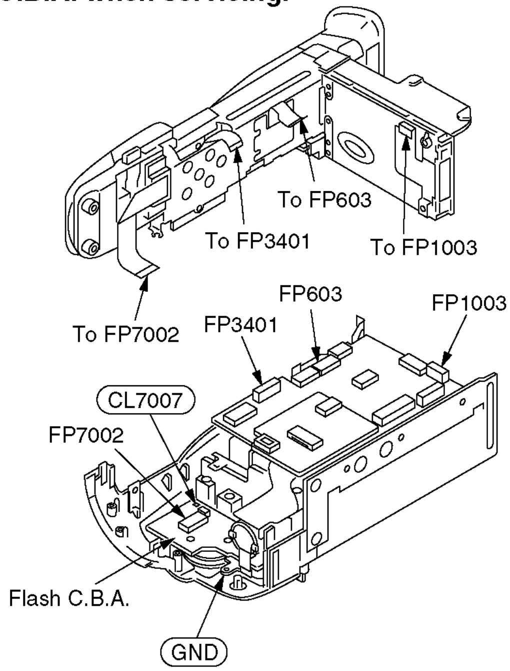

(N)
Screw (N)
4mm
BLACK

Fig. D16

CAUTION
Be sure to discharge the capacitor on Flash C.B.A. before disassembling.
CAUTION
Be careful of the high voltage circuit on Flash C.B.A. when servicing.


To FP603
To FP3401
To FP1003
To FP7002
FP603
FP3401
FP1003
CL7007
FP7002
Flash C.B.A.
GND

Method:

1. Prepare the 2 Resistors (ERG2SJ221:220 ohm/2w) for discharge.
   Note:
   Above 2 Resistors may be substituted with equivalent type.
2. Make short circuit using 2 Resistors between CL7007 and GND for 3 seconds as follows.
3. After discharging, confirm that the capacitor voltage is sufficiently lowered using a voltmeter.

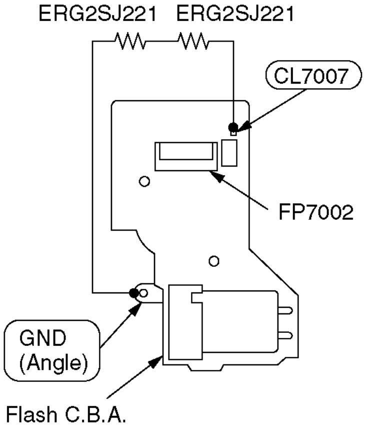

ERG2SJ221
ERG2SJ221
CL7007
FP7002
GND
(Angle)
Flash C.B.A.

Fig. D17

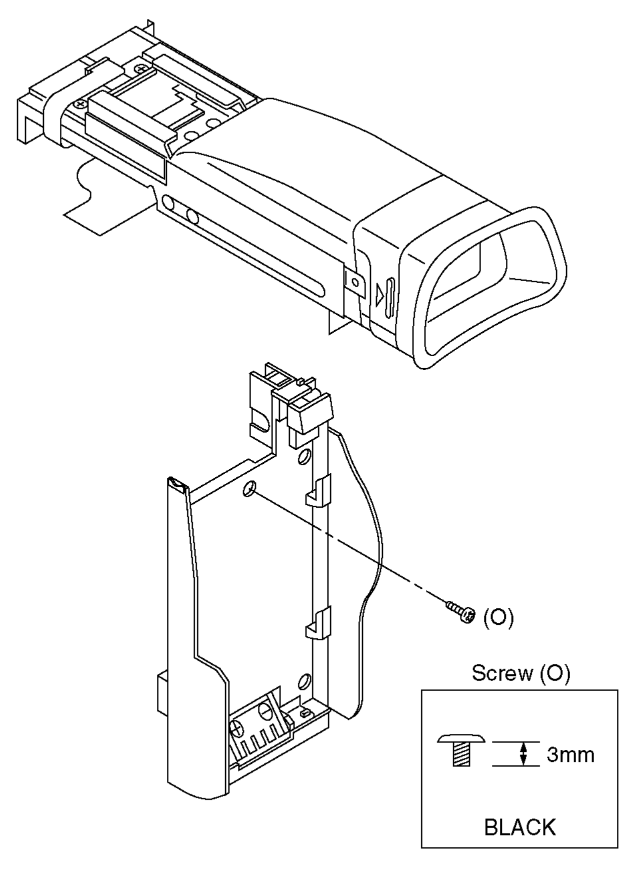

(O)
Screw (O)
3mm
BLACK

Fig. D18

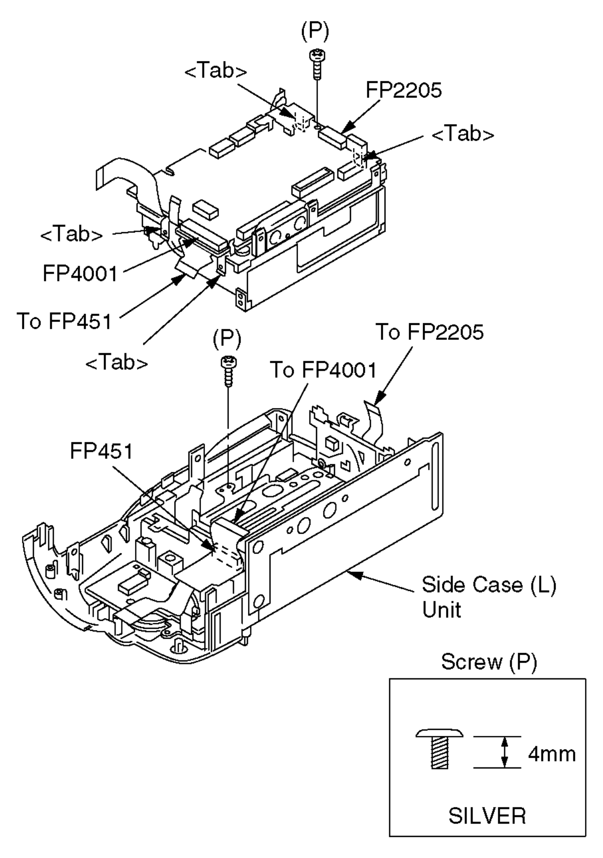

(P)
<Tab>
FP2205
<Tab>
<Tab>
FP4001
To FP451
<Tab>
(P)
To FP2205
To FP4001
FP451
Side Case (L)
Unit
Screw (P)
4mm
SILVER

Fig. D19

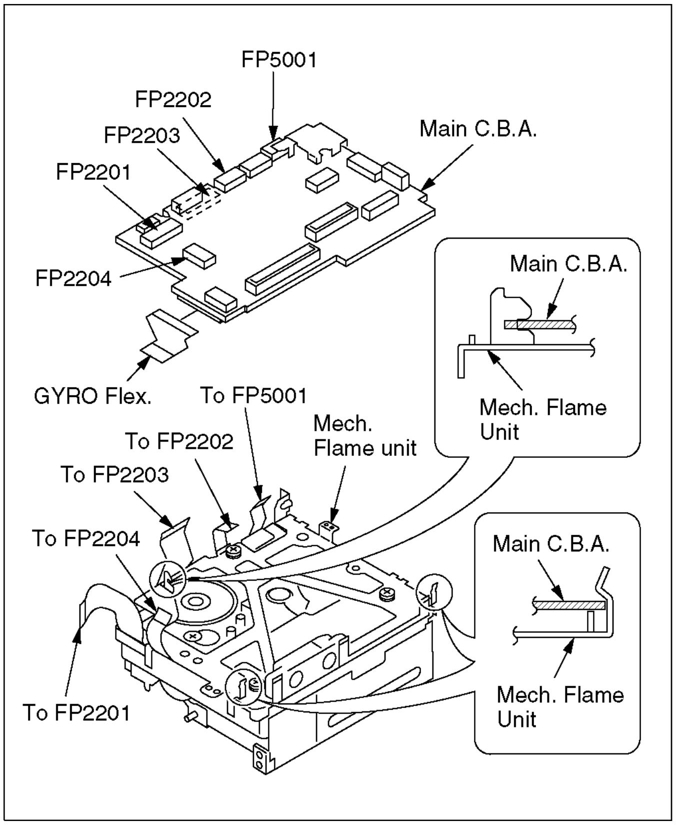

FP5001
FP2202
FP2203
Main C.B.A.
FP2201
FP2204
Main C.B.A.
GYRO Flex.
To FP5001
Mech.
Flame unit
Mech. Flame
Unit
To FP2202
To FP2203
To FP2204
Main C.B.A.
To FP2201
Mech. Flame
Unit

Fig. D20

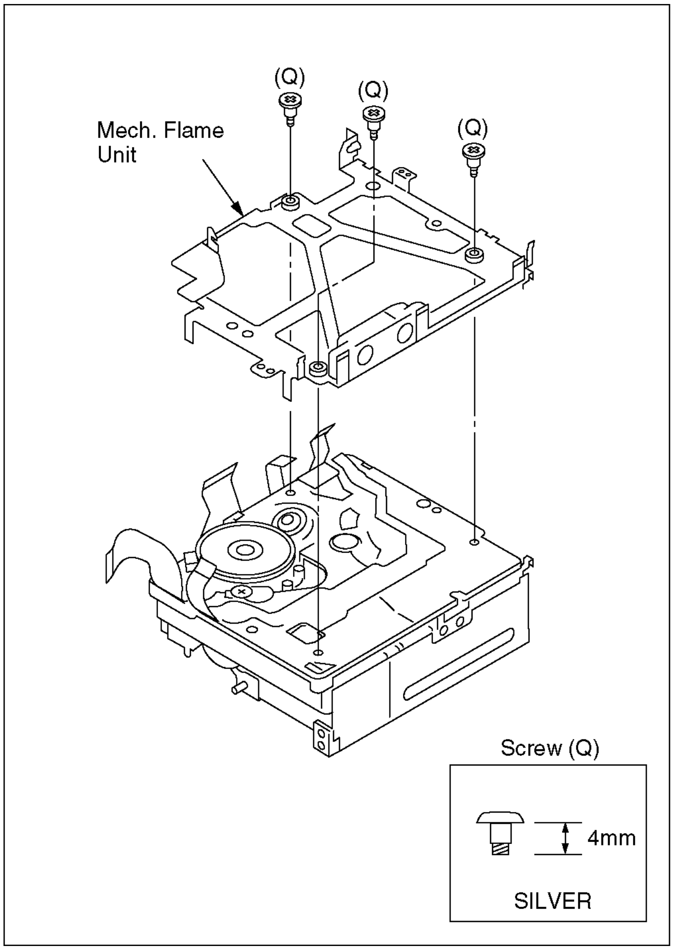

(Q)
(Q)
(Q)
Mech. Flame
Unit
Screw (Q)
4mm
SILVER

Fig. D21

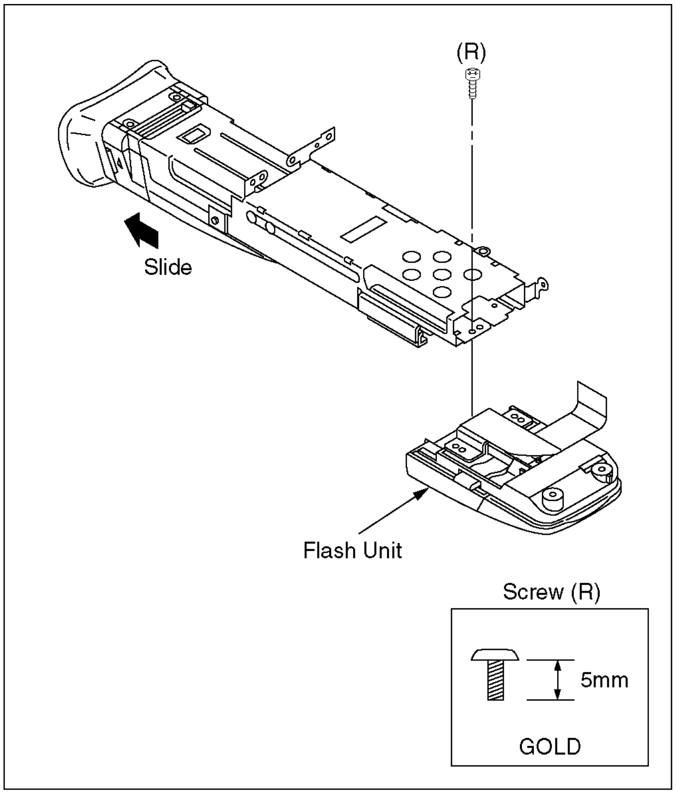

(R)
Slide
Flash Unit
Screw (R)
5mm
GOLD

Fig. D22

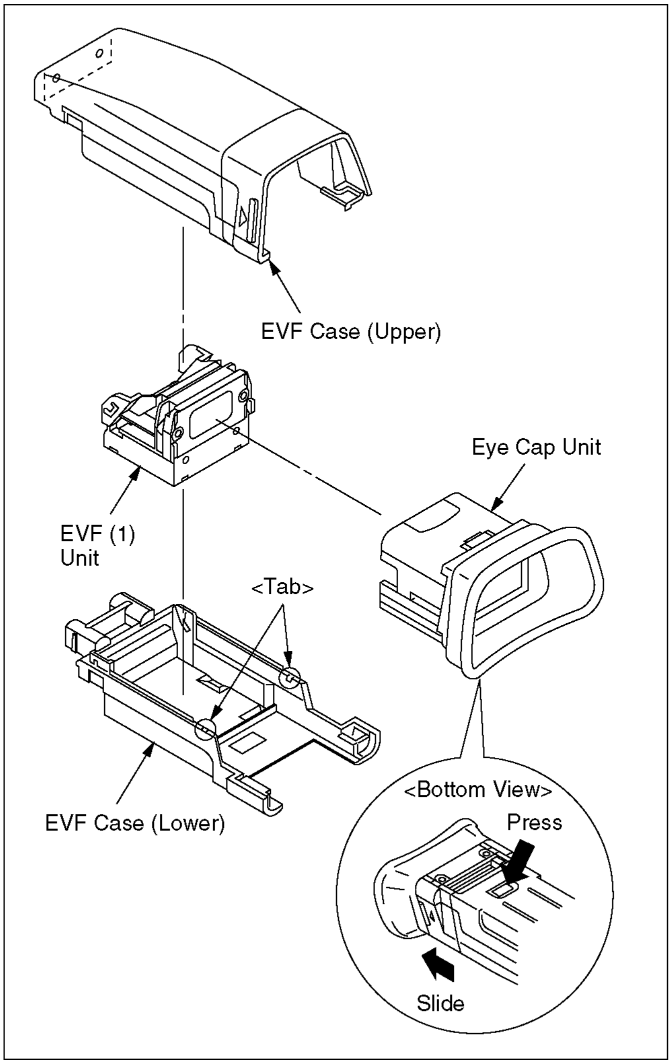

EVF Case (Upper)
Eye Cap Unit
EVF (1)
Unit
<Tab>
EVF Case (Lower)
<Bottom View>
Press
Slide

Fig. D24

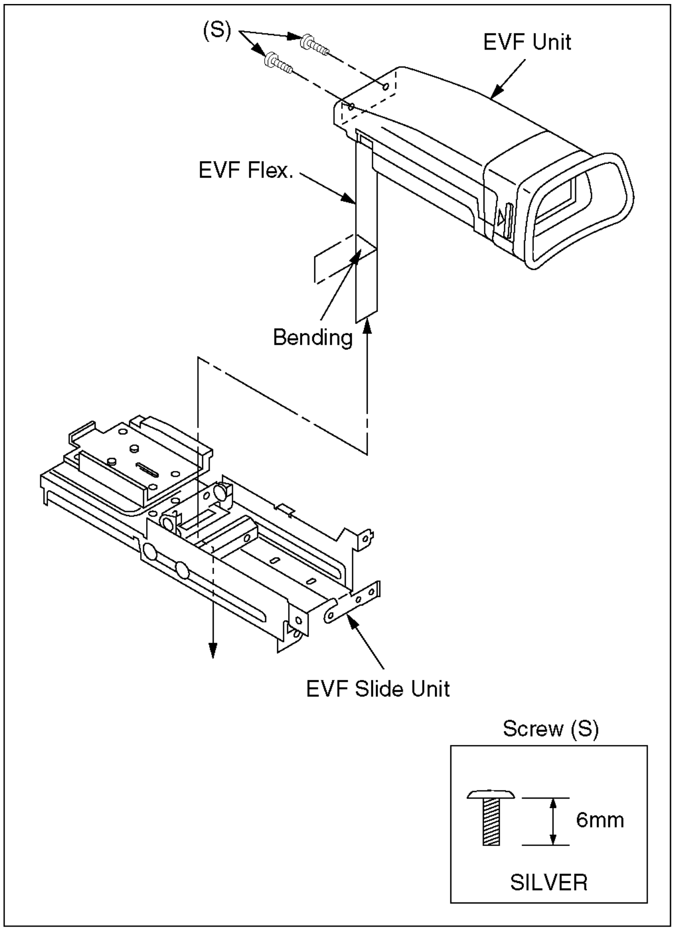

(S)
EVF Unit
EVF Flex.
Bending
EVF Slide Unit
Screw (S)
6mm
SILVER

Fig. D23

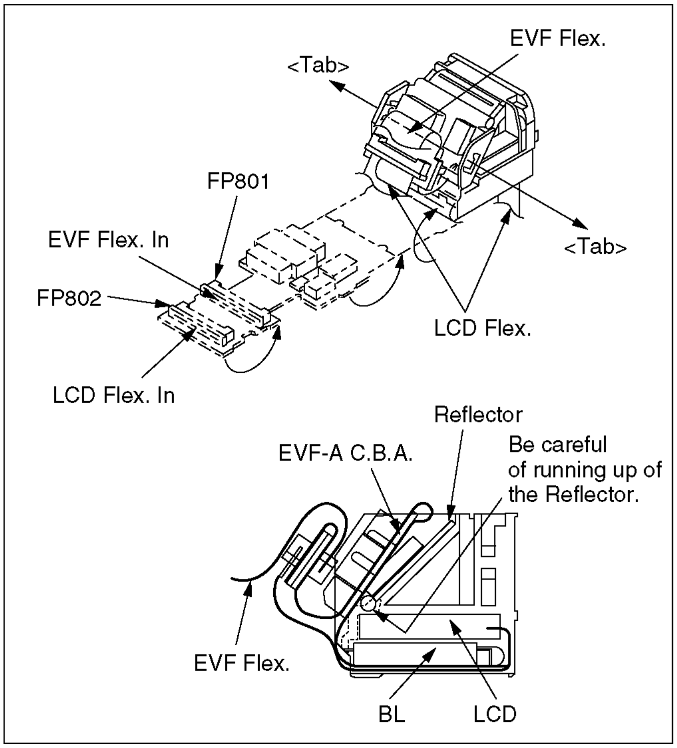

EVF Flex.
<Tab>
FP801
EVF Flex. In
<Tab>
FP802
LCD Flex.
LCD Flex. In
Reflector
EVF-A C.B.A.
Be careful
of running up of
the Reflector.
EVF Flex.
BL
LCD

Fig. D25

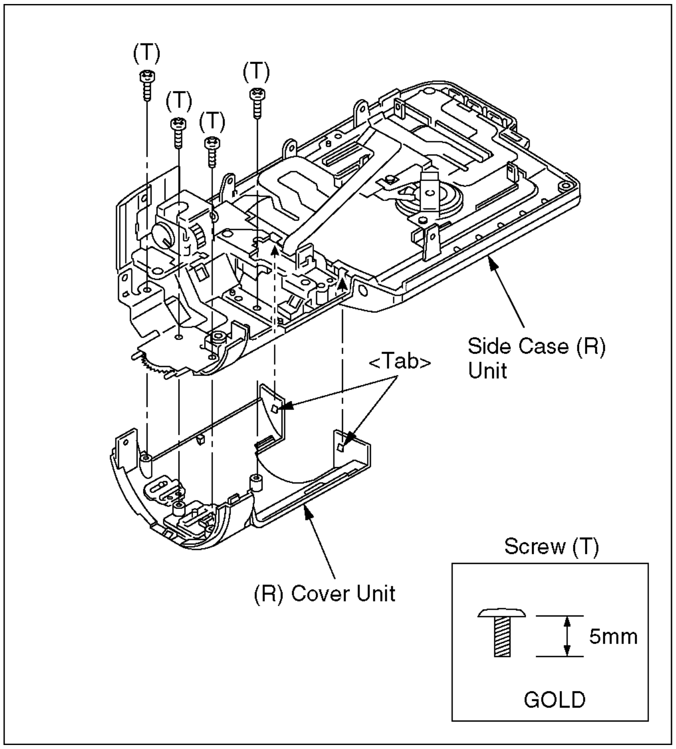

(T)
(T)
(T)
(T)
Side Case (R) Unit
<Tab>
(R) Cover Unit
Screw (T)
5mm
GOLD

Fig. D26

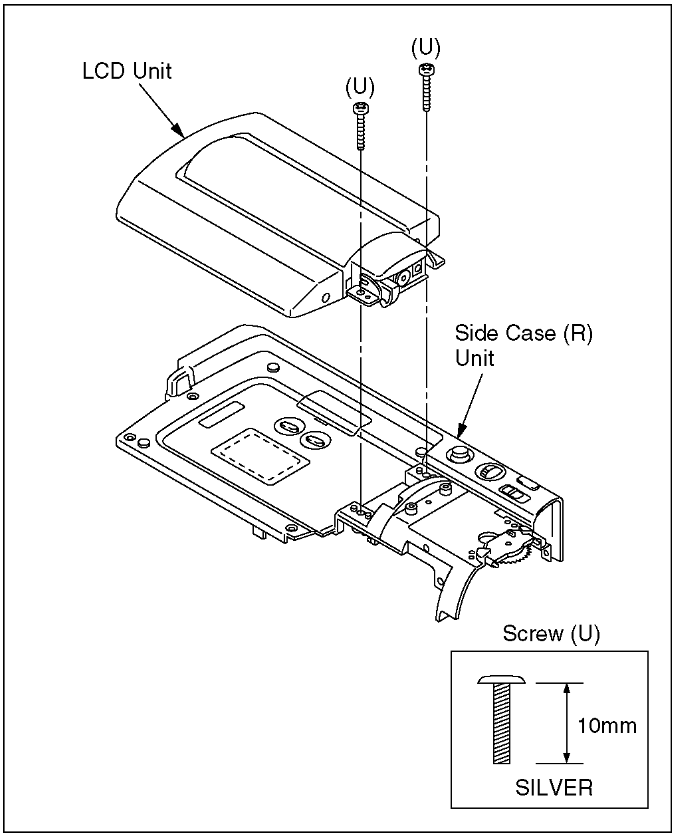

LCD Unit
(U)
(U)
Side Case (R) Unit
Screw (U)
10mm
SILVER

Fig. D27

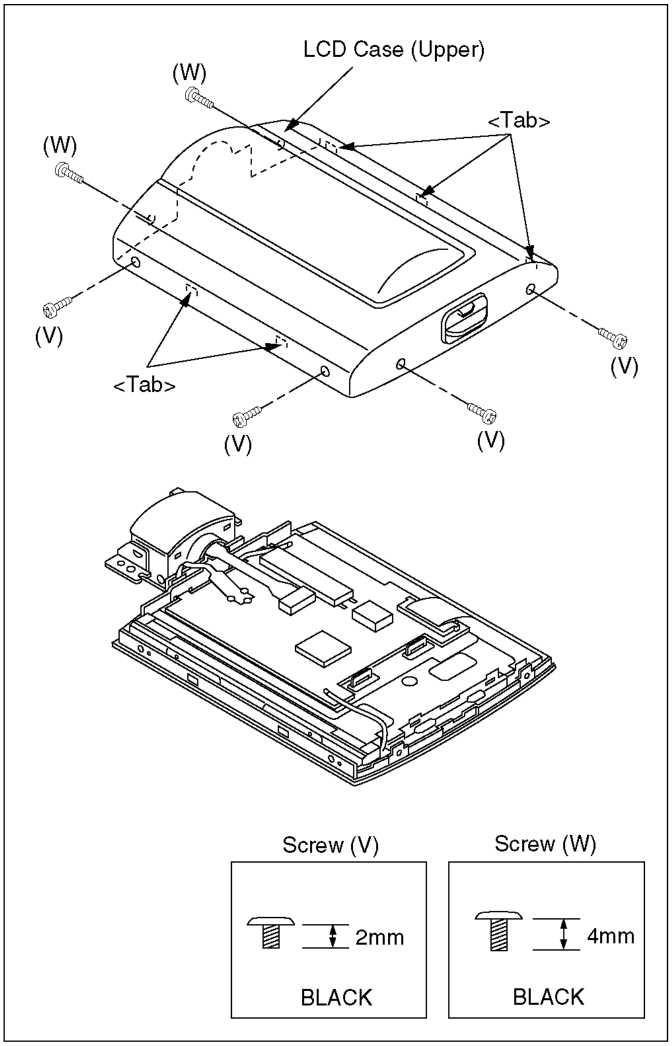

LCD Case (Upper)
(W)
(W)
<Tab>
(V)
(V)
<Tab>
(V)
(V)
(V)
Screw (V)
2mm
BLACK
Screw (W)
4mm
BLACK

Fig. D28

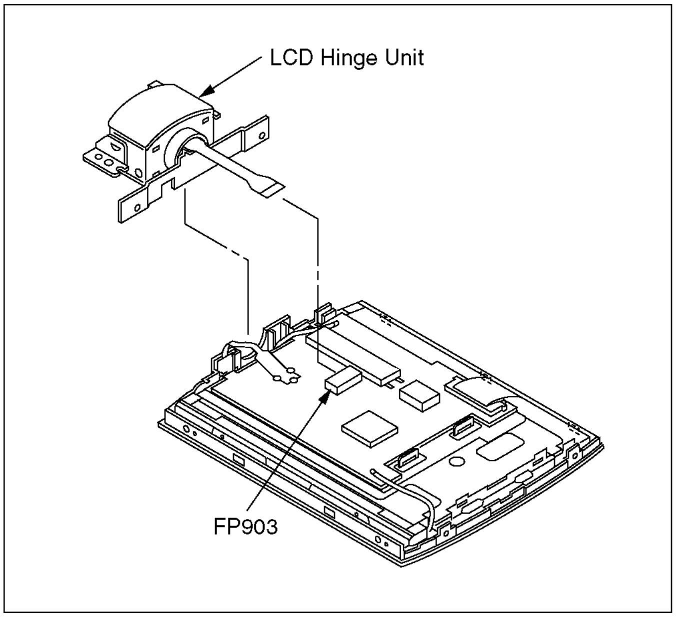

LCD Hinge Unit
FP903

Fig. D29

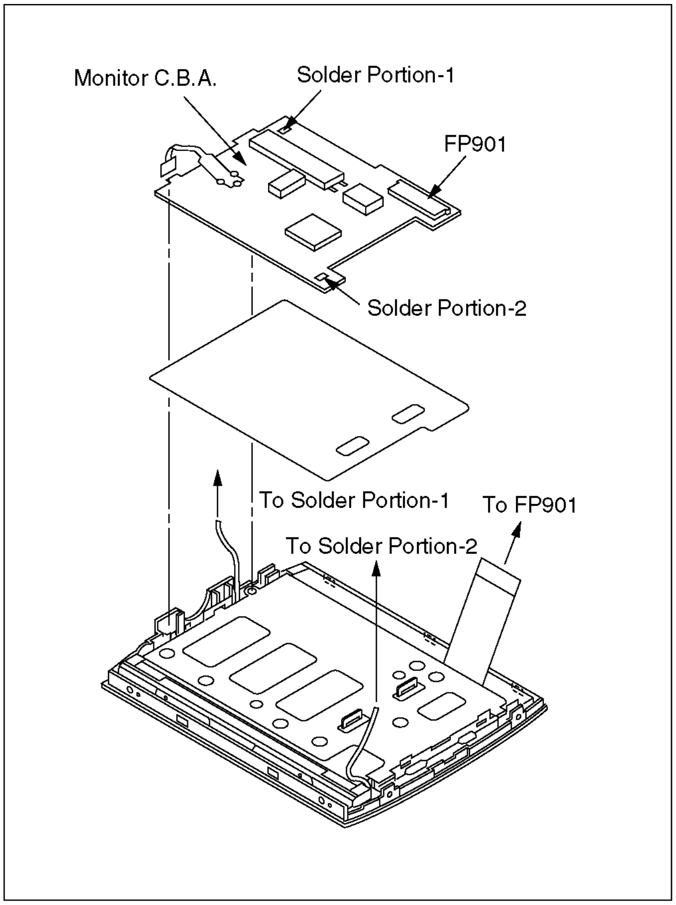

Monitor C.B.A.
Solder Portion-1
FP901
Solder Portion-2
To Solder Portion-1
To FP901
To Solder Portion-2

Fig. D30

8.3. DISASSEMBLY PROCEDURES OF CAMERA LENS UNIT

The following flowchart describes order or steps for removing the Camera lens unit and certain printed circuit boards in order to make access to the item needing service.
To reassemble the unit follow the steps in reverse order.

1. CCD Unit	Ref.-No.302
2. CCD Cushion & Crystal Filter	Ref.-No.303/301
3. Lens Flex. Unit & Zoom Motor	Ref.-No.308/319
4. Master Flange & Iris Unit	Ref.-No.318/306
5. 3rd Moving Frame Unit	Ref.-No.317
6. 4th Moving Frame Unit	Ref.-No.315
7. 2nd Moving Frame Unit	Ref.-No.314
8. Z Guide Pole	Ref.-No.311/312

Note 1:
Each Ref-numbers are equivalent to number of Fig.L2 and Parts List.

Fig. L1

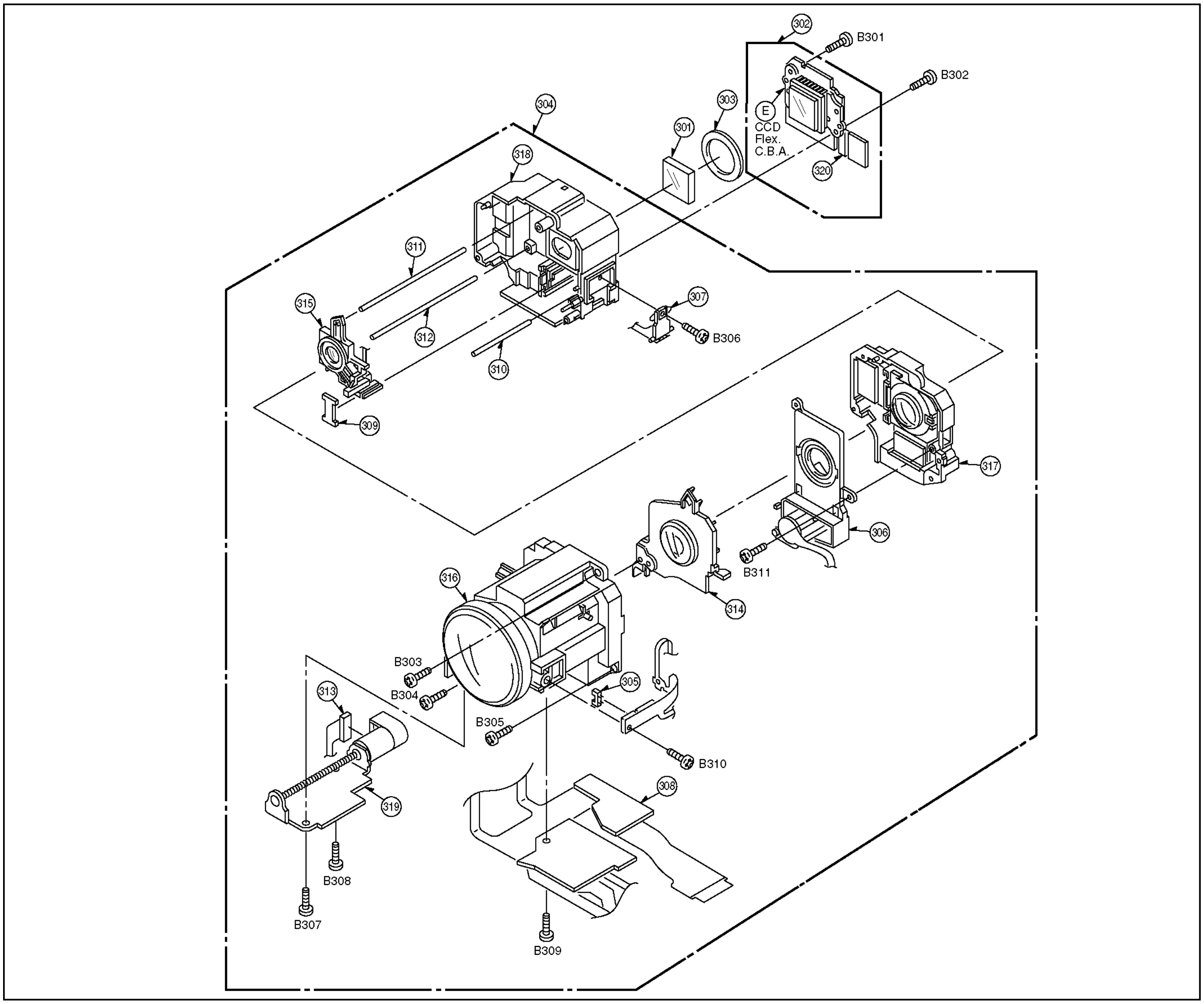

302
B301
B302
304
303
301
E
CCD
Flex.
C.B.A.
320
318
311
315
312
307
B306
310
309
317
306
B311
314
316
B303
B304
305
313
B305
B310
308
319
B308
B307
B309

Fig. L2

9 ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
A	A GND	Analogue GND		ALC MAIN	Auto Level Control Drive
	A HASW	Audio Head Amp Switching Pulse		ALE	Address Latch Enable
	A HSW	Audio Switching Pulse		A-LOCK	Full Auto Switch
	A MUTE	Audio Mute		A-MUT(H)	Audio Mute (H)
	A ORP	Audio Overlap Pulse		ANLPTH	Analogue Loop Through High
	A. TR	Auto Tracking		AORP	Audio Overlap Pulse
	A0-8, 0-17	Memory Address		APCNT	Aperture Control
	A3V2	AD Converter Reference Voltage		APS	Auto Power Save
	AB0-4	Address Bus		ART VH	Artifical Vertical Sync
	AB0-4, AB12-15	Address Bus Line 0-4, 12-15		AT CNT	Automatic Tracking Gain Adjust
	ABSF	Focus Encoder Input		ATF	Automatic Track Finding
	ACI	Analogue Channel Cording IC		ATFCLK	41.85MHz Clock
	AD	AD Converter		ATFG	Auto Track Gain
	AD	Auto Date, Analogue Digital Converter		ATL	Auto Lock Select
	AD CLK	AD Clock		ATN	Absolute Track Number
	AD REC	Audio Delayed REC		ATR OFF(H)	Auto Tracking Off (H)
	AD0-6	Address		ATV	Advanced TV
	AD0-6, ADR0-6	Address Data Line		AUDIO(N)	Audio (Normal)
	ADCLK	Analogue Digital Converter Clock		AUX	Auxiliary
	ADCNT	Analogue Digital Control		AVDD	Analogue VDD
	ADCS	Analogue Digital Chip Select		AVSS	Analogue Ground
	A-DET	Audio Detect		AWTB	Auto White Balance B-Y
	ADREC	Audio Delaied Rec		AWTR	Auto White Balance R-Y
	ADUB	Audio Dubbing			
	AE	Auto Expose	B	BACK	Back-up
	AECNT	Auto Expose Control		BACK UP	Microcomputer Back-up
	AEE(H)	Audio E-E (H)		BACK VDD	Back-up Power
	AEH	Audio Erase Head		BATT	Battery
	AEIRQ	Auto Expose Interrupt Request		BATT ALARM	Battery Alarm
	AF/MF	Auto Focus/Manual Focus		BATT REF	Reference Voltage for Battery
	AF DIS CS	AF DIS Chip Select		BCB	B Carrier Balance
	A-FADE(L)	Audio Fade (L)		BCBM(B-Y)	B-Y Carrier Balance
	AF-AMP	AF HALL Bias		BCBM(R-Y)	R-Y Carrier Balance
	AFCS	Auto Focus Chip Select		BD0-7	REC/Play In/Out Buss
	AFRP	Audio PLL Voltage Control		BDCK	Standard Bus Data Clock (9MHz)
	AF-VN	Zoom Encoder V-Ref (–)		BDEN	Standard Bus Data Enable
	AF-VP	Zoom Encoder VREF (+)		BEND	Data Block End Request
	AGC	Automatic Gain Control		BF	Burst Flag Pulse
	AGCCNT	Automatic Gain Control Control		BFA	Burst Flag Pulse for Encorder
	AGND	Analogue Ground/Audio Ground		BFO/BFI	Burst Flug Input/Output
	AGS	Anti Ground Shooting		BI, BO	Buffer Input, Output
	AH(P) / (R)	Audio Head (Play) / (Record)		BL	Back Light
	AHASW	Audio Head Amp Switch Pulse		BL ON	Back Light ON (L)
	AHSW	Audio Head Switch Pulse		BL4V	Back Light 4V
	AI, AO	Buffer Input, Output		BLC 0, 1	Back Light Y Control Out, In
	AIBCK	Bit Clock (to A/D Converter)		BLDI/O	Back Light Drive Input/Output
	AIDAT	Serial Data (to A/D Converter)		BLK	Blanking Pulse
	AILRCK	L/R Clock (to A/D Converter)		BLKA	Blanking for Encorder
	AIMCK	Master Clock (to A/D Converter)		BLKA	Blanking Pulse for Encorder
	ALC CNT	Auto Level Control Control		BLKI/O	Blanking Pulse In/Out

INITIAL/LOGO		ABBREVIATIONS
	BLKZ	Blanking Pulse for Zoom Encorder
	BM	Balance Modulator
	BQUIET	Bus Out Control Signal
	BUF IN/OUT	Buffer In/Out
	B-Y KB	B-Y Carrier Balance
	B-YO	B-Y Signal Out
C	C A In/Out	Pre-Aperture In/Out
	CAPSTP	Capstan Stop Flag
	C CNT	Colour Control
	C SYNC	Composite Sync Signal
	C/N	Carrier/Noise
	C0-7, C00-07	Chrominance Signal 0-7
	CAGAIN	Aperture Gain Control
	CAM	Camera
	CAM CLK	Camera Clock
	CAM RST	Camera Reset
	CAM SIOC	Camera Serial In/Out Contol
	CAM T	Camera Test
	CAM TL	Capstan Trque Limit
	CAP EC	Capstan Trque Control
	CAP P(H)	Capstan Power On (H)
	CAP R/F/S	Capstan Reverse (H)/Stop (M)/Forward (L)
	CAP SW	Capstan Power Control Switch
	CAPSTP H	Capstan Stop Flag (Stop High)
	CAPVM	Capstan Motor Current
	CAPVS	Capstan Motor Power Control Switch
	CAS	Compresion, Audio Process, Shuffling/Deshuffling
	CAS	Memory Address Strobe (Active Low)
	CASDOWN, DWN	Cassette Down (L)
	CB, CR	Chroma B, Chroma R
	CBLK	Composite Blanking Pulse
	CC	Channel Cording
	CCA	Curent Drive Control
	CCA	Current Control Amp
	CCD	Charge Coupled Devise
	CCW	Counterclockwise
	CD SP0-7	Digital Chroma
	CDS	Correlate Double Sampling Signal
	CDS1, 2	Sampling Pulse for CCD Output Signal
	CE	Chip Enable
	CE	Control Pulse Erase
	CEC	Capstan Error Code
	C-ERA(H)	Control Erase (H)
	CFEM	Chrominance Memory Signal
	CFM	Chrominance Field Memory
	CFM1-4	Chroma Field Memory Signal
	CG CLK	Character Generator Clock
	CG CLK DATA	Clock Generator Data
	CG DATA	Character Generator Data
	CGC	Chrominance Gain Control
	CGCS	Character Generator Chip Select
	CGO	Character Generator Serial Data
	CH	Charge
	CH1	Channel 1 (Odd Field)
	CHR	Character
	CHR BACK	Character Back-up
	CHR MIX	Character Mix
	CI, CO	Buffer In/Out
	CI,CO	Buffer Input & Output
	CIF	Control Signal Forward Input
	CIF, CIR	Positive Control Pulse, Negative Control Pulse
	CIR	Control Signal Reverse Input
	CK	Clock
	CL/CLK	Clock
	CLASS	Classeffication Signal for Compress (DCT/VLC)
	CLASS 0.1	Class Control Signal Durring DCT/VLC
	CLK135	13.5MHz System Clock
	CLK18	18MHz System Clock
	CLK2	Clock 2 (824XFH: 12.875MHz)
	CLK246	24.576MHz Clock
	CLK27	27MHz System Clock
	CLK450	450KHz Clock
	CLKDCLK	Digital Clock
	CLK-PH	Clock Phase Control
	CLK-REF	Reference Clock
	CLP-RST-H	Clamp Reset High Signal
	CLX	TFT X-axis Transmission Clock
	CLX, CLX1-4	Shift Clock for X Direction (LCD Panel)
	CLY	Shift Clock for Y Direction (LCD Panel)
	CLY	TFT Y-axis Transmission Clock
	CLY FG	Cylinder FG Signal
	CMEMO0-3	Chroma Memory Output Signal 0-3
	CMIX	Character Mix
	CMO	Chrominance Memory Output
	COMPC	Position Detection Pulse
	COM RDY	Serial Enable Signal
	CMODE	Camera Mode
	CNCLK	Clock
	CNR	Chrominance Noise Reduction
	CNT, CONT	Control
	CO	Control Out
	CO0-7	Chrominance Output 0 to 7 (Digital)
	COM	Common
	COM RDY	Serial Transmission Enable
	COMB	Comb Filter
	COS EQ	Cosin Equalizer
	CP	Clamp Pulse
	CP ON(H)	Camera Power On(H)
	CP2, 20	Clamp Pulse
	CP2A, CP2O	Encoder Clamp Pulse
	CPN	Component Signal
	CPOB	Clamp Pulse for Optical Blanking
	CPS	Composite Signal
	CPV	Gate Scan Clock
	CR OUT	Pre Apature Out
	CR POW SW	Camera Remote Power On Switch
	CRA	Aperture Gain Control

INITIAL/LOGO		ABBREVIATIONS
	CRA	Pre Apature Gain Control
	CRST	Camera Reset
	CS	Chip Select
	CS 0-7	Chrominance Signal Out 0-7
	CSEL	Clock Phase Select
	CSI 0-7	Chrominance Signal In 0-7
	CTSW	Crosstalk Switch
	CURR	Current
	CW	Clockwise
	CYL EC	Cylinder Motor Trque Control
	CYL PG	Cylinder Motor PG
	CYL VM	Cylinder Motor Current or Power
D	D CLK	Digital Clock
	D MODE	Digital Mode Switch Signal
	D01-03	Zoom 01-03
	DA UV SEL	D/A Convertor U/V Select
	DAC	Digital Analogue Converter
	DAG	Digital Analogue Ground
	DB0-7	Data 0-7
	DB0-7	Microprocessor Data
	DCC	DC Clamp Control
	DCCNT	DC Control
	DCI	Digital Channel Cording IC
	DCLR	Digital Clear
	DCP	Digital Clamp Pulse
	DCS-CLK, DA	CAS & DV I/F Serial Clock
	DC-STP1	DCS Serial Start
	DC-STP2	DCS Serial Stop
	DCT	Discrete Cosine Transform (Compression)
	DCX7	Serial Data
	DEDP 0-3	Playback Data
	DEDR 0-3	Rec Data
	DEMO	Demodulation
	DEMP	A/D Convertor Empahsis Control
	DEMP	De-Emphasis
	DFD 0-7	Encode Data In/Out Between Shaffling Memory
	DFD0-7	Encode Input/Output Signal for Shuffling Memory
	DIBDCK	Bit Clock
	DICLK	Digital Clock
	DIDAT	Serial Data
	DIDAT	Serial Data Durring Digital Audio In
	DIF	Digital Interface
	DILRCK	L/R Clock
	DILRCK	Serial Clock Durring Digital Audio In
	DIMCK	Master Clock
	DIMCK	Mater Clock Durring Digital Audio In
	DIO 1-8	Data In/Out
	DIOS	Data In/Out Select Control Signal
	DIOS	Select Signal for Digital In/Out
	DIS	Digital Image Stabilizer
	DIS R/B	Digital Image Stabilizer Read (H)/Busy (L)
	DIS R/B	DIS IC Rady/Busy
	DIS/KAND	Digital Image Stabilizer/Sensitivity
	DISCS	Dis Chip Select
	DISP	Display
	DL	Delay Line
	DOBCK	Audio A/D Convertor Bit Clock
	DOCTL	Data Output Control Signal
	DODAT	Serial Data (to D/A Converter)
	DOLRCK	Audio A/D Converter LR Clock
	DOLRCK	L/R Clock (to D/A Converter)
	DOMCK	Audio A/D Converter Master Clock
	DOMCK	Master Clock (to D/A Converter)
	DQ 1-16	Memory Data
	DRAM CAS	D-RAM Colum Address Strobe
	DRAM OE	D-RAM Out Enable
	DRAM RAS	D-RAM Read Address Strobe
	DREC	AV Delayed REC Start Pulse
	DRK	Dark (LPF Switch for Auto Focus)
	DS1, 2	Double Sampling Pulse
	DSF 0-7	Data In/Out for Shaffling Memory
	DSF 0-7	Input/Output Data to Shuffling Memory (18MHz)
	DSP	Digital Signal Processor
	DSP R/B	DSP IC Rady/Busy
	DSP-48K-H	DSP IC Clock Select
	DSTB	Data Stobe Signal
	DSV	Digital Sum Variation
	DV	Digital Video
	DVB	Digital Video Broadcast
	DVC	Digital Video Cassette
	DVDD	Digital VDD
	DVIO	Digital Video Input Output
	DVSS	Digital Ground
	DX	Shift Data for X Direction (for LCD)
	DY	Shift Data for Y Direction (for LCD)
	DY	TFT Y-axis Shift Data
	DZ	Digital Zoom
E	E Snap	Electric Snap Shot
	E ZM	Electric Zoom
	E2 CS or E2P CS	EEPROM Chip Select
	E2 R/B	EEPROM Rady/Busy
	E2P	EEPROM
	EARP	Earphone
	EC	Torque Control
	ECC	Error Correction Cording
	ECM	Electric Condencer Mic
	ECR	Reference Voltage for Capstan Torque
	EDA	Error Correction, DCI, ATF Servo
	EE CS	EEPROM Chip Select
	EE R/B	EEPROM Read (H)/Busy (L)
	EEPROM	Electric Erasable Programable Read Only Memory
	EIS	Electric Image Stabilizer (DIS)
	EMP	A/D Convertor Emphasis Control
	ENAB	Enable
	ENV	Enverope
	EOB	End of Block

INITIAL/LOGO		ABBREVIATIONS
	EQ	Equalizer
	EVF	Electric View Finder
	EXT DC	External DC (AC Adaptor)
	EXT DC(H)	AC Adaptor DC (H)
	EXT NOREG	AC Adaptor 6V
	EXT S DATA	Serial Data for Edit
	EXT SCK	Serial Clock for Edit
	EZOOM	Electric Zoom
F		
	F ENC	Lens F-Value
	FACT MODE	Factry Mode (not used in the service)
	FB	Feed Back
	FC	Saw Tooth Signal In
	FCK	Clock
	FCO	Saw Tooth Signal Generator
	FENC	Focus Encoder
	FEND	Frame End Pulse
	FH2B	FH/2 (15.625KHz / 2=7.8125KHz)
	FIX OSD	Auto Tracking Off (H)
	FLICK	Flicker Output
	FM	Field Memory
	FM0-7	Field Memory 0-7
	FMCO0-3	Field Memory Chrominance Out 0-4
	FMDIR	Focus Motor Direction
	FMOEM	Field Memory Enable
	FMOEO	Field Memory Enable
	FMT1-4	Focus Motor Terminal 1-4
	FMY00-07	Field Memory Luminance Out 0-7
	FMYI0-07	Field Memory Luminance In 0-7
	FNO	F Value
	FPS	Frame Refference Signal
	FR	Capstan Reverse High
	FRP	Frame Refference Pulse
	FRPSO	Frame Start Pulse
G	G1, G2, G3	Gap 1, 2 and 3
	GCA	Gain Control AMP
	GCNT	Gain Control
	G-CNT	AGC Adjustment
	GCTRL	Gain Control
	GENE	Generator
	GF	FG AMP Terminal
	GSW	Ground for Switching Power
H	H/M/N	Hi-Fi / Mix / Normal
	H/N	Hi-Fi / Normal
	H1, 2	H. CCD Drive Pulse
	HAP	Horizontal Aperture
	HASW	Head AMP Switching Pulse
	HB	Hall Bias
	HBR SET	High Brightness Set
	HBRST	High Brightness Set
	HCLR	High Clear
	HCP	Shift Clock for Horizontal Drive

INITIAL/LOGO		ABBREVIATIONS
	HD	Horizontal Drive Pulse
	HDTV	High Definition TV
	HEX	Hexadecimal
	HG	Hall Gain
	HID	Head Switching Pulse
	HLT	High Bright Signal
	HALL IN(+), (–)	Input Signal from Hall IC
	HP	Headphone
	HPF	High Pass Filter
	HSE	Modulated Data Output
	HSP	Timing Pulse for Shaffling Memory
	HSS	Horizontal Sync Signal
	HSW	Head Switching Pulse
	HS-WT	High Speed Zoom
	HSZ	High Speed Zoom
I	I/F	Interface
	I-2 C	Inter Integrated Circuit
	ID(H)	Wide Television (H)
	IMP	Inter Microprocessor Protocol
	INF	CCD Input Signal 1
	INF	Input Frame Signal
	INS	CCD Input SIgnal 2
	INTER	Interval Recording
	INV	Inverter
	IOU	R-Y Analogue Signal Output
	IOV	B-Y Analogue Signal Output
	IOY	Y Analogue Signal Output
	IR	Infrared Rays
	IRDET	Imfrared Ray Detection
	IREF	Current Adjustment Terminal
	IRIS/SH	Iris / Shutter Control
	IRQ	Interrupt Request
	ITI	Insert & Track Information
J	JPEG	Joint Photographic Image Cording Experts Group
K	KANDO	Digital Gain Up
	KB	Carrier Balance
	KEY IN	Key Scan
	KND	Digital Gain Up
	KNEE	Luminance Compensate
L	LCD	Liquid Crystal Display
	LCD P(L)	LCD Power On (L)
	LD	Load Pulse
	LDD	Liquid Direct Drive
	LEDCNT	LED Control
	LI-BATT	Lithium Battery
	LOAD	Loading
	LOAD F, R	Loading Direction (F: Forward / R: Reverse)
	LPF	Low Pass Filter
	LRMONO	Monoral Audio (L + R)
	LSB	Least Significant Bit

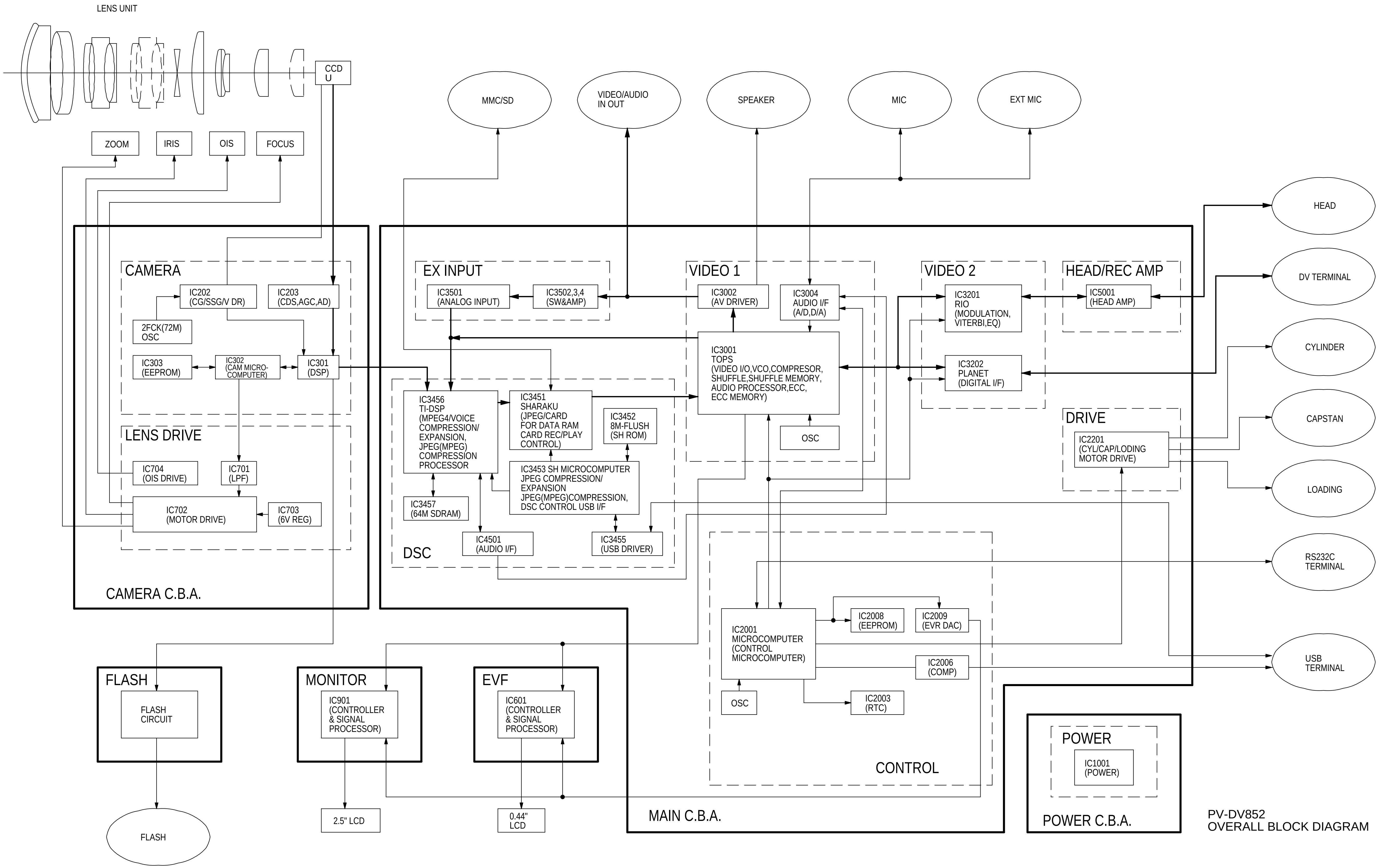
INITIAL/LOGO		ABBREVIATIONS
	LVL	LPF Switch for Auto Focus
M	M1-3	Motor Coil Terminal 1 to 3
	MA0-5	Microprocessor Address Data 0-5
	Mbps	Megahertz Bit Per Second
	MD	Modulation
	MD0-7	Microprocessor Data 0-7
	MDT0-7	Microprocessor Data 0-7
	ME (TAPE)	Metal Evaporated (Tape)
	MENB	Focus Motor Enable
	MFF	Manual Focus Far
	MFN	Manual Focus Near
	MHSYNC	Monitor Horizontal Sync Signal
	MIC	Memory In Cassette
	MIG	Meta In Gap
	MIX N.R.D.	Non Rec Data Mix
	MOD	Modulation
	MOUT	Mic Out
	MP (TAPE)	Metal Particle (Tape)
	MPEG	Moving Picture Image Cording Experts Group
	MPEG2	Moving Picture Image Cording Experts Group Phase 2
	MRST	Focus Motor Reset
	MSB	Most Signal Bit
	MVSYNC	Monitor Vertical Sync Signal
N	N/F	Near/Far Focus
	N/P	NTSC/PAL
	NB1-3	Base for NPN Transistor
	NC	No Connection
	NC1-3	Corrector of NPN Transistor
	NCLR	Power On Reset
	NCP1	Clamp Pulse
	NCP2+VDH	Clamp Pulse + Horizontal Drive Pulse
	NCP2+VDM	Clamp Pulse + Gate Pulse
	NDE	Non Liner De-Emphasis
	NE	Emitor of NPN Transistor
	NLE	Non Liner Emphasis
	NR	Noise Reduction
	NRD	Non Rec Data
	NRD BLK	Non Rec Data Blanking
	NRD CLK	No Rec Data Clock
	NRE	Read Enable Input (Low Active)
	NWE	Write Enable (Low Active)
O	OB	Optical Black
	OBCNT	Optical Black Control
	OBREF	Reference Voltage for Optical Black Control
	OE	Output Enable
	OFH	Horizontal Counted Down Clock Signal (Reference)
	OFS	Offset
	OP	Operation AMP Output
	OSD	ON Screen Display
	OVL	Overlap Pulse
	OZ	Optical Zoom
P	P SW	Power Switch
	PB1-3	PNP Base 1-3
	PBCTL	Play Back Control
	PBCTL	Pre-Branking Control
	PBH	Head Amp Switch
	PBLK	Pre-Blanking (Pulse)
	PC1-3	Corrector of PNP Transistor
	PCBM	Carrier Balance
	PCH	Phase Compensator (Hall AMP)
	PCI	Phase Compensator (Current)
	PCO	Phase Compensator Out
	PCS	Switching Power Control
	PCV	Phase Compensator (Voltage)
	PE	Emitter of PNP Transistor
	PED	Pedestal
	PEDECNT	Pedestal Control
	PENO	Alarm (L)
	PFP	Pilot Frame Position
	PGA, B	Power Ground A, B
	PGC	Pulse Generator Comparator
	PGI	Pulse Generator Input
	PGMM	Pulse Generator Monostable Multivibrator
	PGO	Output of Pulse Generator AMP
	PMODE	Select Signal for Normal / Wide Screen
	PON	Power On
	POR	Power On Reset
	POSCOM	Common Position
	PREAMP	Pre-AMP
	PREBLK	Pre-Blanking
	PT	Protect for V Voltage
	PWM	Pulse Width Modulation
	PWMB	Pulse Width Modulation Pulse
Q	Q2H	Source Output Select
R	R CTL P	Recorded Control Pulse (+)
	R CTL R	Recorded Control Pulse (–)
	R/B	Read/Busy
	R/L	Direction Control for Data Transmition
	RA	Recording AMP
	RA1	Rec AMP 1
	RAC AC	Rec Audio Current
	RAD	Read Address Data
	RAE	Read Address Enable
	RB	Read Busy
	R-B	R Bias
	RCB	R Carrier Balance
	RE	Read Enable
	RE(F), (S)	Rotary Erase Head Transformer
	REB	R Bias
	REC CC	Rec Current Control
	REC CCNT	Rec Current Control
	RECCTRL	Recording Control Pulse
	RECI	Rec Amp Switch

INITIAL/LOGO		ABBREVIATIONS
	RENCF	Lens Control (Forward)
	RENCR	Lens Control (Reverse)
	RERASE	Rotary Erase Head
	RGBIV1-2	1V Inverted Signal 1-2
	RGO R/G OFF	Offset Voltage for AWT R
	RSF	Capstan Direction (Reverse / Stop / Forward)
	RST	Reset
	RSTB	R Strobe
	RSTPWD	Reset Power Down Input
	RSTR	Reset Read
	RSTW	Reset Write
	RT	Saw Tooth Terminal
	RVCO	Resister for Oscillation
	RW	Read Write
	RWAE	Read Write Enable
S	S PHOT	Supply Photo Transistor
	S/H	Sampling Hold
	S/S	Start/Stop
	SBD	Serial Data
	SBI	Serial Data Input
	SBO	Serial Data Output
	SBT	Serial Clock
	SCAN0-5	Key Scan 0-5
	SCK	Serial Clock
	SCR	Search
	SCR, S.C.R.	Still Cue Review
	SEG.	Segment
	SET	White Balance Set
	SH/IRIS	Shutter/Iris Control
	SHIFT	Capasitor for Phase Shift
	SI	Serial Data Input
	SIC	Shift In Clock Input
	SIOC	Serial In/Out Control
	SMCE	Shaffling Memory Chip Enable
	SMRS	Shaffling Memory Read Strobe
	SMWE	Shaffling Memory Write Enable
	SMWS	Shaffling Memory Read Strobe
	SNAP	Snap Shot
	SNS LED	Sensor LED
	SO	Serial Data Output
	SPA	ATF Smapling Pulse
	SPEN	8 Bit Shift Register Enable
	SPK	Speaker
	SPO	Reset for Switcing Power
	SPST	8 Bit Shift Register Strobe
	SREELP	Supply Reel Pulse
	SRT	Start
	SSA	Start Sync block Area
	SSW	Select Signal for Low Pass Filter
	ST5V	Safety Tab 5V
	STAB	Safety Tab Switch
	STB	Stand by Signal
	STB	Strobe
	SWB	Switching Pre-Drive Pulse
	SYL EC	Cylinder Torque Control
	SYL FG	Cylinder FG
T	T PHOT	Take-up Photo Transistor
	TBC	Time Base Conntrol
	TFT	Thim Film Transistor
	TH	Thermostat for Battery
	TI	Test Mode Select
	TL	Torque Limit
	TM	Sub Code
	TMD	Sub Code Data
	TRE	Tracking Error Signal
	TREEL(P)	Take-up Reel (Pulse)
	TRFIX	Tracking Fix
	TRIWAVE	Tracking Wave
	TRP	Tracking Position
	TRP	Trap
	TSR	Head Switching Refference
	TST	Time Scale Transfer
U	U/V SEL	R-Y/B-Y Select Signal
	UNLOAD	Un-Loading
	UNRE	Microprocessor Read Enable
	UNWE	Microprocessor Write Enable
	UV	R-Y/B-Y
	UV SEL	R-Y/B-Y Select Signal
V	V1-V4	V. CCD Drive Pulse
	VB	VH Filter Switching
	VCE	Power Terminal
	VCNTL	Video Control
	VCO	Voltage Control Oscillator
	VCP	Shift Clock Output for Vertical Drive
	VCTLD	Video Control
	VCTRL	Voltage Charge Control
	VD	Vertical Drive Pulse
	VDDX	X Drive Power for Colour LCD
	VDDXY	XY Drive Power for Colour LCD
	VDDY	Y Drive Power for Colour LCD
	VDREC	Video Delayed Rec
	Vgg	Voltage for Gate IC
	Vgl	Gate off Voltage
	VID	Video Signal Out
	VIN	Video In
	VITC	Vertical Interval Time Code
	VITERBI	One of Signal Detection Method
	VL	Low Voltage
	VLC	Variable Length Cording
	VLOCKP	Artificial Sync Pulse
	VLP	Artificial Sync Pulse
	VM	Motor Voltage
	VMD	Velocity Mode Data
	VMD1-3	Electric Shutter Mode

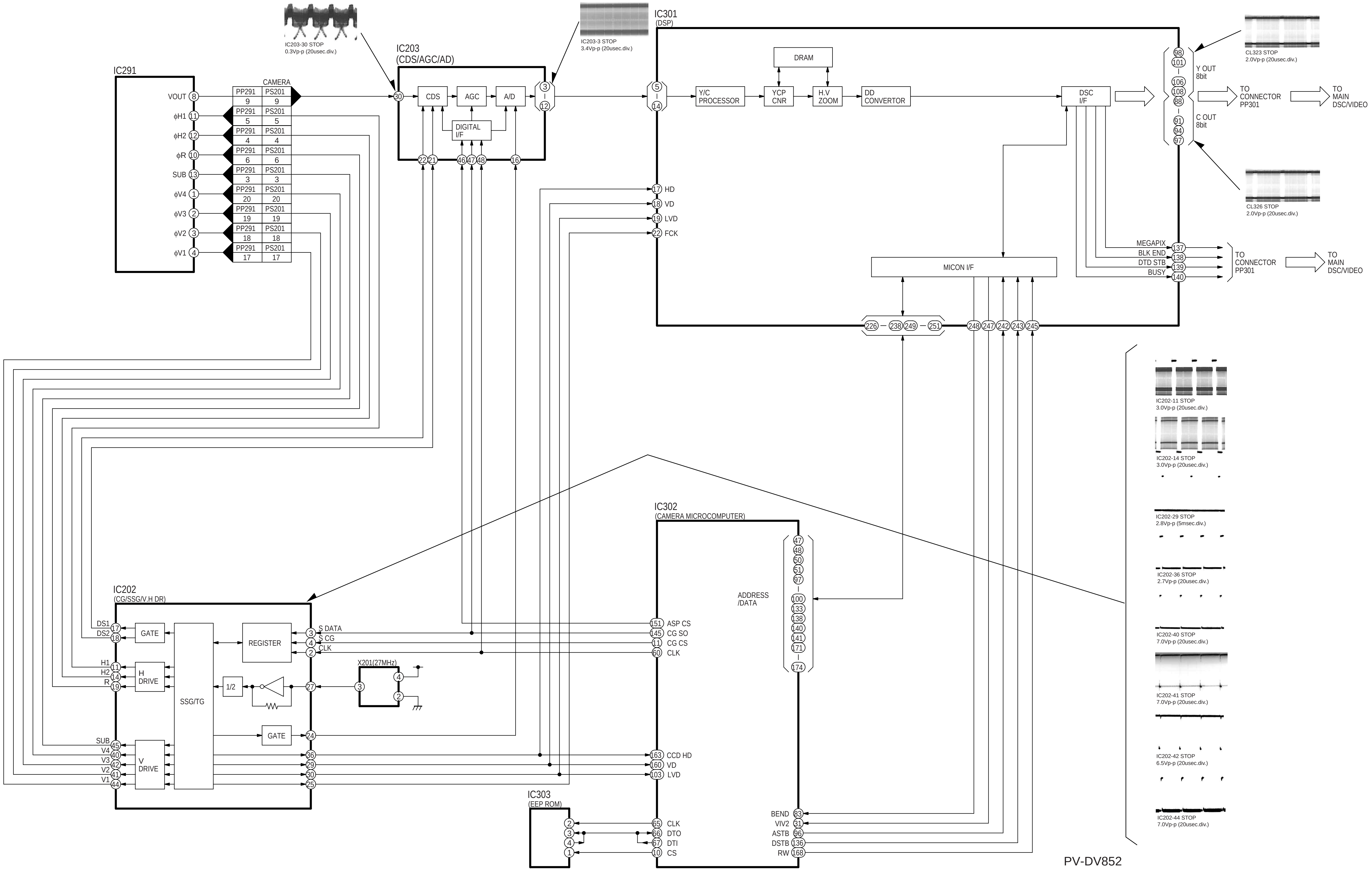
INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO		ABBREVIATIONS
	VMODE	NTSC/PAL Select Switch			
	VMVH	VH Filter Switching			
	VORP	Video Overlap			
	VRB	Voltage Refference Bottom			
	VRBS	Voltage Refference Bottom Output			
	VREF1R3V	Refference Voltage 1.3V			
	VREF3R3V	Refference Voltage 3.3V			
	VREFH	Refference Voltage High Side			
	VREFL	Refference Voltage Low Side			
	VRI	Refference Voltage Input			
	VRO	Refference Voltage Output			
	VRT	Voltage Refference Top			
	VRTS	Voltage Refference Top Output			
	VS	Switching Comparator			
	VSS	Vertical Sync Signal			
	VSSX	X Driver Power for Colour LCD			
	VSSXY	X-Y Driver Power for Colour LCD			
W	W/N	Mode Select for Window Mode			
	W/N	Wide / Normal			
	WAD	Write Address Enable			
	WAE	Write Address Enable			
	WAERAE	Write Address Enable			
	WARI	Interrupt			
	WB	White Balance			
	WE	Write Enable			
	WEM	Memory Write Enable			
	WHD	Wide Horizontal Drive Pulse			
	WIDE A	Wide Zoom			
	WSB	B AGC Control			
	WSR	R AGC Control			
	WTV	Wide TV			
X	XP	FG Logic Reset			
Y	Y FM0-7	Y Field Memory 0-7			
	YCE	Cylinder Error Code			
	YGC	Y Gain Control			
	YMO 0-7	Y Field Memory 0-7			
	YNCST	Noize Canceller			
	YNR	Luminance Noise Reduction			
	YSDP 0-7	Digital Y Out 0-7			
Z	Z.ENC	Zoom Encoder			
	Z.MIC	Zoom Mic			
	ZENC	Zoom Encoder Output			
	ZMDIR	Zoom Drive			
	ZMEN	Zoom Enable			
	ZMT	Zoom Motor Tele Side			
	ZMT (+)/(–)	Zoom Motor (+)/(–)			
	ZMTER	Zoom Motor Tele Side			
	ZMW	Zoom Motor Wide Side			
	ZSW	Zoom Switch			

10 BLOCK DIAGRAMS

10.1. OVERALL BLOCK DIAGRAM

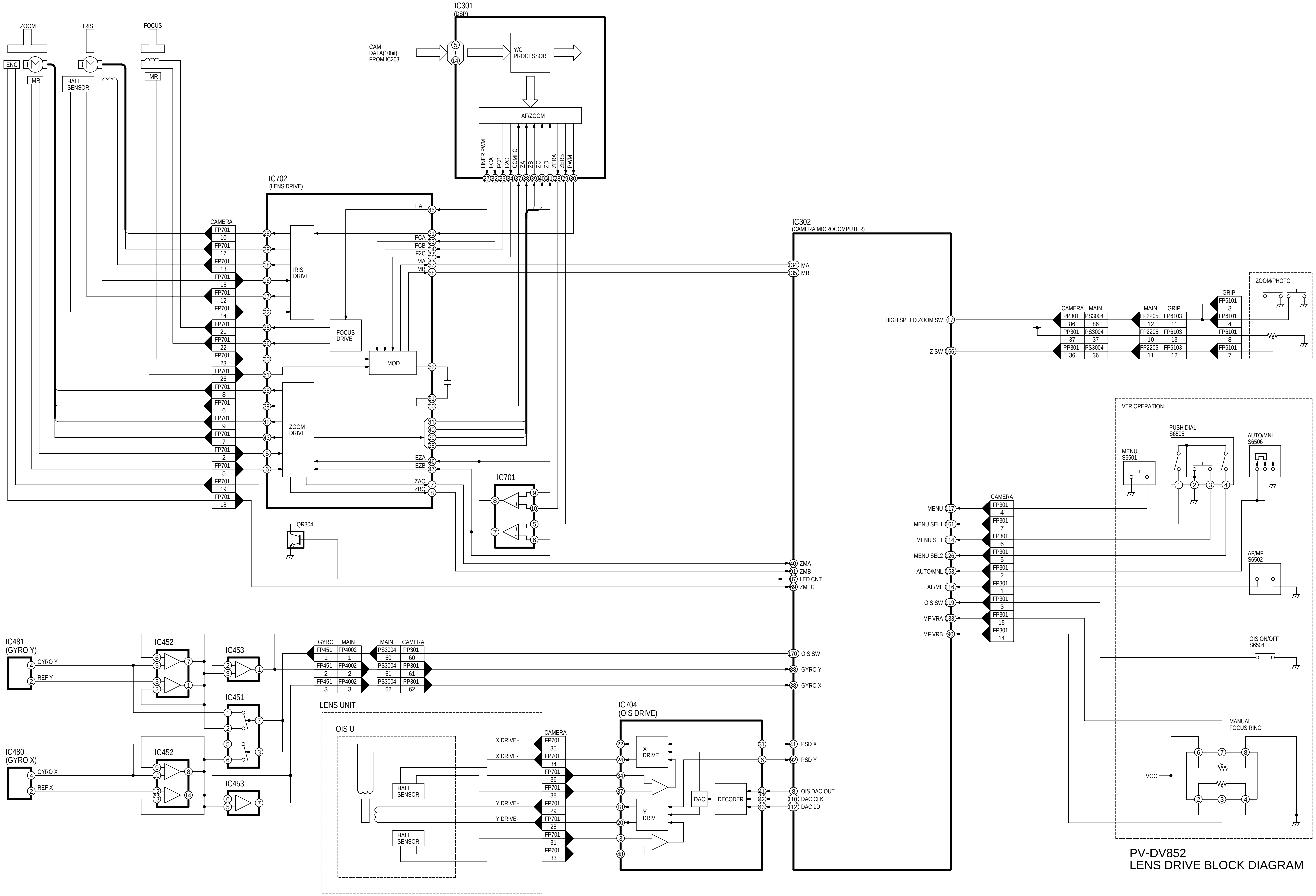

LENS UNIT
CCD U
ZOOM
IRIS
OIS
FOCUS
MMC/SD
VIDEO/AUDIO IN OUT
SPEAKER
MIC
EXT MIC
HEAD
DV TERMINAL
CYLINDER
CAPSTAN
LOADING
RS232C TERMINAL
USB TERMINAL
CAMERA
IC202 (CG/SSG/V DR)
IC203 (CDS,AGC,AD)
2FCK(72M) OSC
IC303 (EEPROM)
IC302 (CAM MICRO-COMPUTER)
IC301 (DSP)
LENS DRIVE
IC704 (OIS DRIVE)
IC701 (LPF)
IC702 (MOTOR DRIVE)
IC703 (6V REG)
CAMERA C.B.A.
EX INPUT
IC3501 (ANALOG INPUT)
IC3502,3,4 (SW&AMP)
DSC
IC3456 TI-DSP (MPEG4/VOICE COMPRESSION/ EXPANSION, JPEG(MPEG) COMPRESSION PROCESSOR
IC3451 SHARAKU (JPEG/CARD FOR DATA RAM CARD REC/PLAY CONTROL)
IC3452 8M-FLUSH (SH ROM)
IC3453 SH MICROCOMPUTER JPEG COMPRESSION/ EXPANSION JPEG(MPEG)COMPRESSION, DSC CONTROL USB I/F
IC3457 (64M SDRAM)
IC4501 (AUDIO I/F)
IC3455 (USB DRIVER)
VIDEO 1
IC3002 (AV DRIVER)
IC3004 AUDIO I/F (A/D,D/A)
IC3001 TOPS (VIDEO I/O,VCO,COMPRESOR, SHUFFLE,SHUFFLE MEMORY, AUDIO PROCESSOR,ECC, ECC MEMORY)
OSC
VIDEO 2
IC3201 RIO (MODULATION, VITERBI,EQ)
IC3202 PLANET (DIGITAL I/F)
HEAD/REC AMP
IC5001 (HEAD AMP)
DRIVE
IC2201 (CYL/CAP/LODING MOTOR DRIVE)
CONTROL
IC2001 MICROCOMPUTER (CONTROL MICROCOMPUTER)
IC2008 (EEPROM)
IC2009 (EVR DAC)
IC2006 (COMP)
IC2003 (RTC)
OSC
MAIN C.B.A.
POWER
IC1001 (POWER)
POWER C.B.A.
FLASH
FLASH CIRCUIT
FLASH
MONITOR
IC901 (CONTROLLER & SIGNAL PROCESSOR)
2.5" LCD
EVF
IC601 (CONTROLLER & SIGNAL PROCESSOR)
0.44" LCD
PV-DV852
OVERALL BLOCK DIAGRAM

10.2. CAMERA BLOCK DIAGRAM


IC203-30 STOP
0.3Vp-p (20usec.div.)
IC203-3 STOP
3.4Vp-p (20usec.div.)
IC291
VOUT 8
φH1 11
φH2 12
φR 10
SUB 13
φV4 1
φV3 2
φV2 3
φV1 4
CAMERA
PP291 PS201
9 9
5 5
4 4
6 6
3 3
20 20
19 19
18 18
17 17
IC203
(CDS/AGC/AD)
30
CDS
AGC
A/D
DIGITAL I/F
3
12
22 21 46 47 48 16
IC301
(DSP)
5
14
Y/C PROCESSOR
DRAM
YCP CNR
H.V ZOOM
DD CONVERTOR
DSC I/F
98 101 106 108 88
Y OUT 8bit
91 94 97
C OUT 8bit
TO CONNECTOR PP301
TO MAIN DSC/VIDEO
CL323 STOP
2.0Vp-p (20usec.div.)
CL326 STOP
2.0Vp-p (20usec.div.)
17 HD
18 VD
19 LVD
22 FCK
MICON I/F
MEGAPIX 137
BLK END 138
DTD STB 139
BUSY 140
TO CONNECTOR PP301
TO MAIN DSC/VIDEO
226 238 249 251 248 247 242 243 245
IC202-11 STOP
3.0Vp-p (20usec.div.)
IC202-14 STOP
3.0Vp-p (20usec.div.)
IC202-29 STOP
2.8Vp-p (5msec.div.)
IC202-36 STOP
2.7Vp-p (20usec.div.)
IC202-40 STOP
7.0Vp-p (20usec.div.)
IC202-41 STOP
7.0Vp-p (20usec.div.)
IC202-42 STOP
6.5Vp-p (20usec.div.)
IC202-44 STOP
7.0Vp-p (20usec.div.)
IC302
(CAMERA MICROCOMPUTER)
ADDRESS /DATA
47 48 50 51 97 100 133 138 140 141 171 174
151 ASP CS
145 CG SO
11 CG CS
60 CLK
163 CCD HD
160 VD
103 LVD
BEND 83
VIV2 31
ASTB 96
DSTB 136
RW 168
65 CLK
66 DTO
67 DTI
10 CS
IC303
(EEP ROM)
2 3 4 1
IC202
(CG/SSG/V.H DR)
DS1 17
DS2 18
GATE
REGISTER
3 S DATA
4 S CG
2 CLK
H1 11
H2 14
R 19
H DRIVE
SSG/TG
1/2
27
X201(27MHz)
3 4 2
GATE
24
SUB 45
V4 40
V3 42
V2 41
V1 44
V DRIVE
36 29 30 25

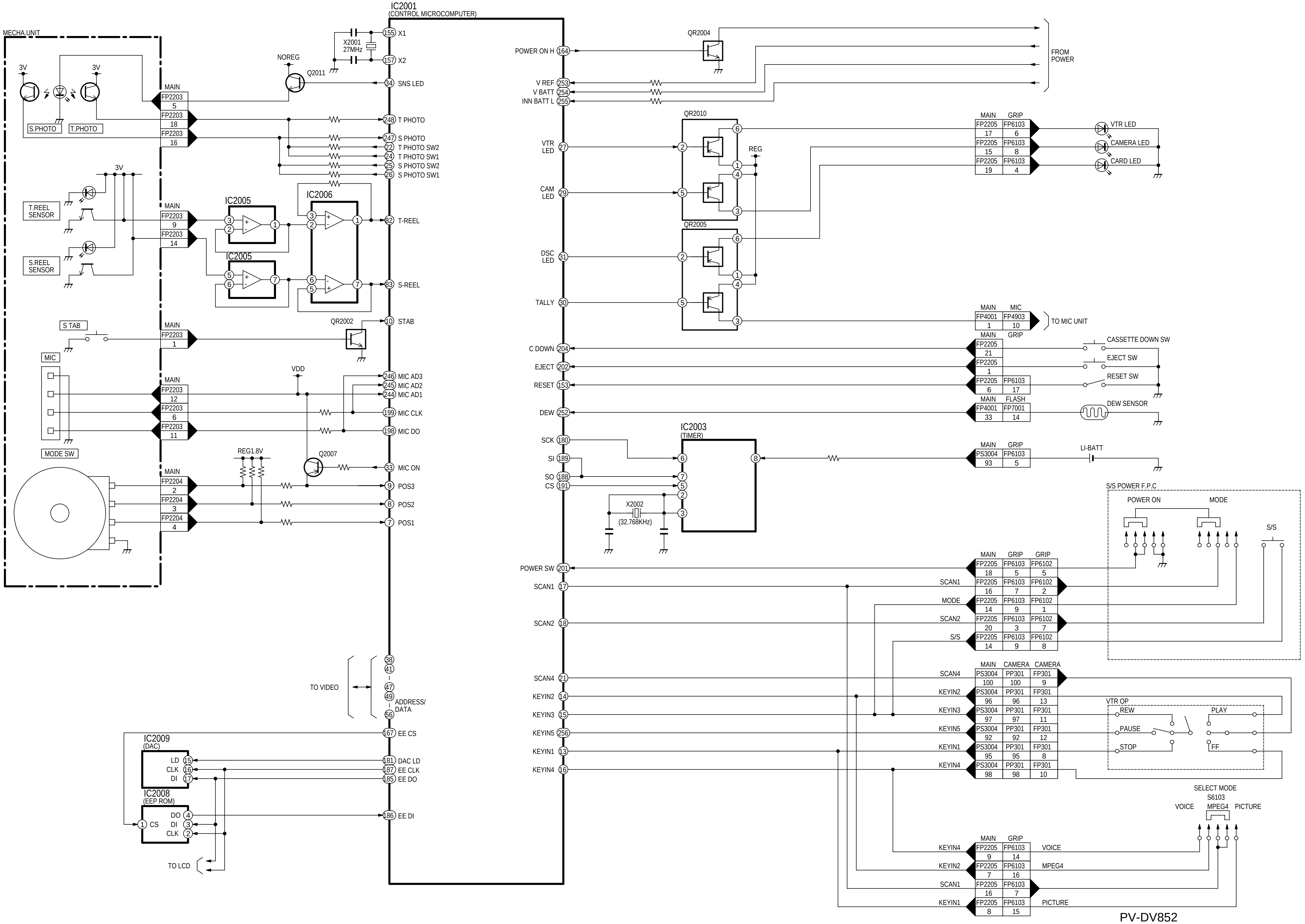
PV-DV852
CAMERA BLOCK DIAGRAM

10.3. LENS DRIVE BLOCK DIAGRAM


ZOOM
IRIS
FOCUS
ENC
MR
HALL SENSOR
IC301 (DSP)
CAM DATA(10bit) FROM IC203
Y/C PROCESSOR
AF/ZOOM
LINER PWM
FCA
FCB
F2C
COMPC
ZA
ZB
ZC
ZD
ZERA
ZERB
PWM
IC702 (LENS DRIVE)
EAF
MA
MB
IRIS DRIVE
FOCUS DRIVE
MOD
ZOOM DRIVE
EZA
EZB
ZAO
ZBO
IC701
QR304
CAMERA
FP701
IC302 (CAMERA MICROCOMPUTER)
ZMA
ZMB
LED CNT
ZMEC
HIGH SPEED ZOOM SW
Z SW
MAIN
GRIP
PP301
PS3004
FP2205
FP6103
FP6101
ZOOM/PHOTO
VTR OPERATION
MENU S6501
PUSH DIAL S6505
AUTO/MNL S6506
AF/MF S6502
OIS ON/OFF S6504
MENU
MENU SEL1
MENU SET
MENU SEL2
AUTO/MNL
AF/MF
OIS SW
MF VRA
MF VRB
MANUAL FOCUS RING
VCC
IC481 (GYRO Y)
GYRO Y
REF Y
IC480 (GYRO X)
GYRO X
REF X
IC452
IC453
IC451
GYRO
FP451
FP4002
OIS SW
LENS UNIT
OIS U
HALL SENSOR
X DRIVE+
X DRIVE-
Y DRIVE+
Y DRIVE-
IC704 (OIS DRIVE)
X DRIVE
Y DRIVE
DAC
DECODER
PSD X
PSD Y
OIS DAC OUT
DAC CLK
DAC LD

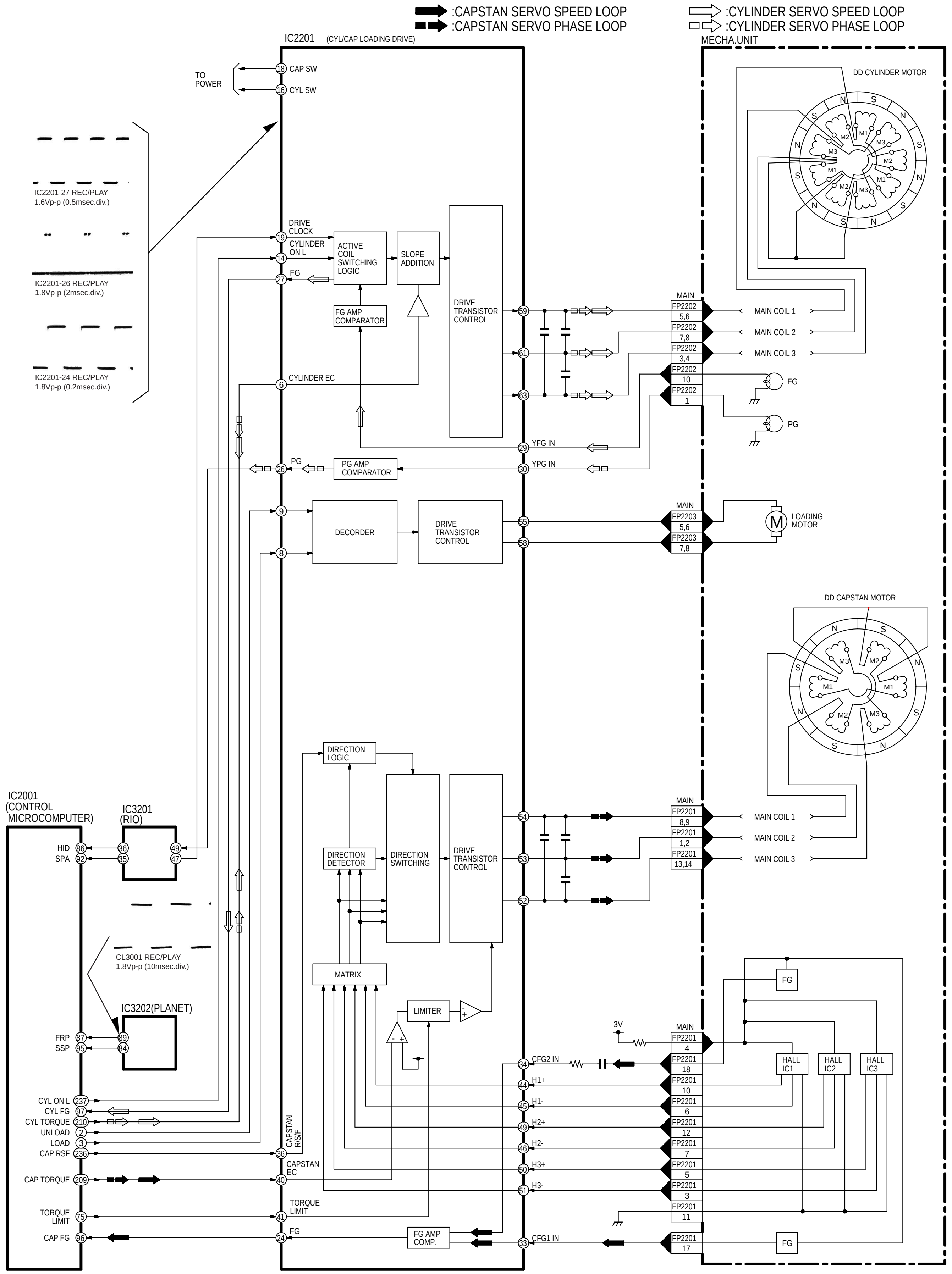
PV-DV852
LENS DRIVE BLOCK DIAGRAM

10.4. CONTROL 1 BLOCK DIAGRAM


IC2001
(CONTROL MICROCOMPUTER)
MECHA.UNIT
3V
3V
S.PHOTO
T.PHOTO
MAIN
FP2203
5
18
16
NOREG
Q2011
X2001
27MHz
155 X1
157 X2
34 SNS LED
248 T PHOTO
247 S PHOTO
22 T PHOTO SW2
24 T PHOTO SW1
25 S PHOTO SW2
26 S PHOTO SW1
T.REEL SENSOR
S.REEL SENSOR
IC2005
IC2006
9
14
82 T-REEL
83 S-REEL
S TAB
QR2002
10 STAB
1
MIC
VDD
246 MIC AD3
245 MIC AD2
244 MIC AD1
199 MIC CLK
198 MIC DO
12
6
11
MODE SW
REG1.8V
Q2007
33 MIC ON
FP2204
2
3
4
9 POS3
8 POS2
7 POS1
TO VIDEO
38
41
47
49
56
ADDRESS/
DATA
167 EE CS
IC2009
(DAC)
LD 15
CLK 16
DI 17
181 DAC LD
187 EE CLK
185 EE DO
IC2008
(EEP ROM)
DO 4
CS
DI 3
CLK 2
186 EE DI
TO LCD
POWER ON H 164
QR2004
FROM
POWER
V REF 253
V BATT 254
INN BATT L 255
QR2010
REG
VTR LED 27
CAM LED 29
QR2005
DSC LED 31
TALLY 30
GRIP
FP2205
FP6103
17 6
15 8
19 4
VTR LED
CAMERA LED
CARD LED
MIC
FP4001
FP4903
1 10
TO MIC UNIT
C DOWN 204
EJECT 202
RESET 153
DEW 252
21
1
6 17
CASSETTE DOWN SW
EJECT SW
RESET SW
FLASH
FP7001
33 14
DEW SENSOR
IC2003
(TIMER)
SCK 180
SI 189
SO 188
CS 191
X2002
(32.768KHz)
PS3004
93 5
LI-BATT
S/S POWER F.P.C
POWER ON
MODE
S/S
POWER SW 201
SCAN1 17
SCAN2 18
FP6102
18 5 5
SCAN1 16 7 2
MODE 14 9 1
SCAN2 20 3 7
S/S 14 9 8
SCAN4 21
KEYIN2 14
KEYIN3 15
KEYIN5 256
KEYIN1 13
KEYIN4 16
CAMERA
PP301
FP301
SCAN4 100 100 9
KEYIN2 96 96 13
KEYIN3 97 97 11
KEYIN5 92 92 12
KEYIN1 95 95 8
KEYIN4 98 98 10
VTR OP
REW
PLAY
PAUSE
STOP
FF
SELECT MODE
S6103
VOICE
MPEG4
PICTURE
KEYIN4 9 14 VOICE
KEYIN2 7 16 MPEG4
SCAN1 16 7
KEYIN1 8 15 PICTURE

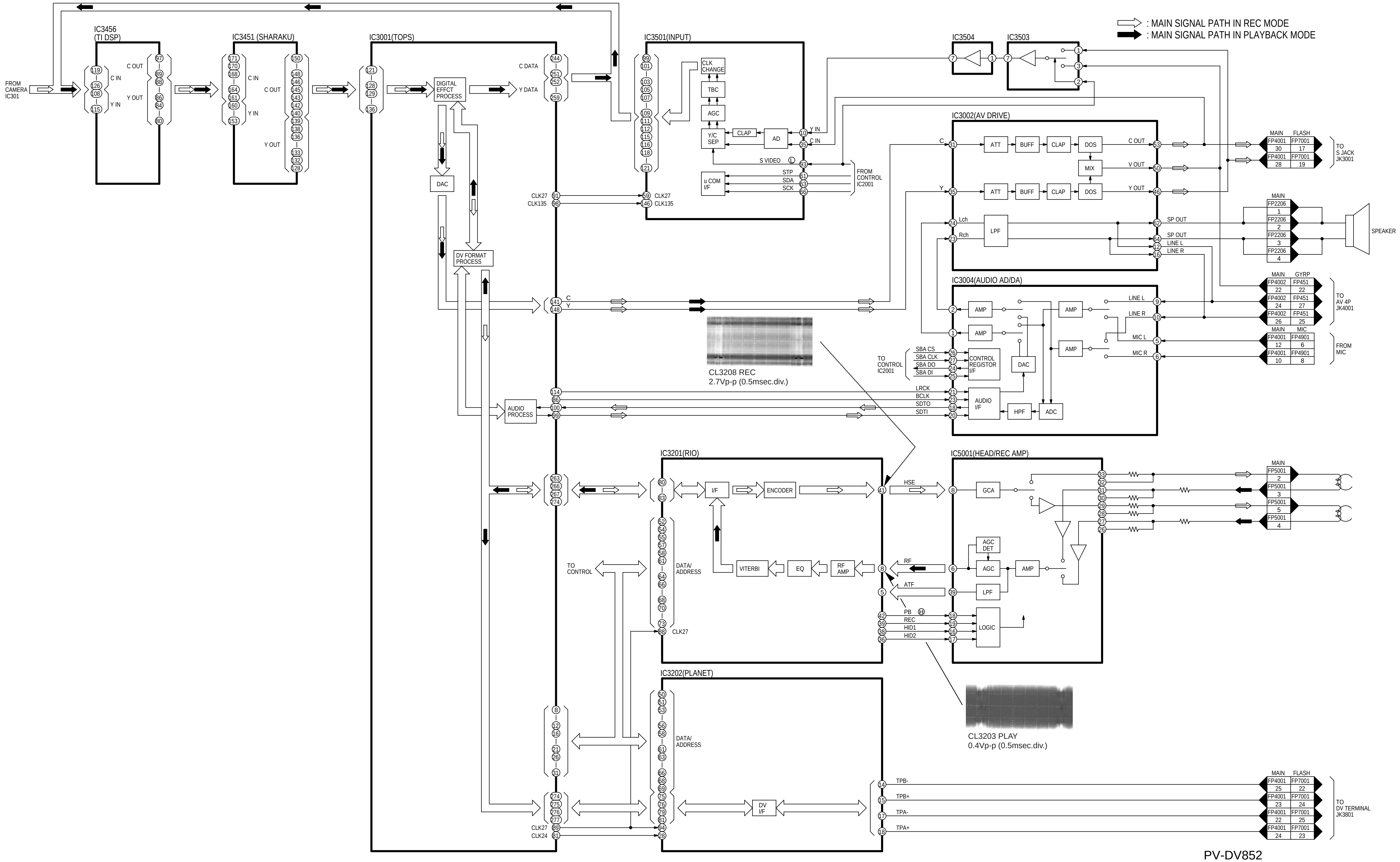
PV-DV852
CONTROL 1 BLOCK DIAGRAM

10.5. CONTROL 2 BLOCK DIAGRAM


:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
IC2201 (CYL/CAP LOADING DRIVE)
MECHA.UNIT
TO POWER
CAP SW
CYL SW
IC2201-27 REC/PLAY
1.6Vp-p (0.5msec.div.)
IC2201-26 REC/PLAY
1.8Vp-p (2msec.div.)
IC2201-24 REC/PLAY
1.8Vp-p (0.2msec.div.)
DRIVE CLOCK
CYLINDER ON L
FG
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
FG AMP COMPARATOR
DRIVE TRANSISTOR CONTROL
CYLINDER EC
PG
PG AMP COMPARATOR
YFG IN
YPG IN
DD CYLINDER MOTOR
M1
M2
M3
N
S
MAIN
FP2202 5,6
FP2202 7,8
FP2202 3,4
FP2202 10
FP2202 1
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
FG
PG
DECORDER
DRIVE TRANSISTOR CONTROL
FP2203 5,6
FP2203 7,8
LOADING MOTOR
M
DD CAPSTAN MOTOR
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRIVE TRANSISTOR CONTROL
FP2201 8,9
FP2201 1,2
FP2201 13,14
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
IC2001 (CONTROL MICROCOMPUTER)
IC3201 (RIO)
HID
SPA
CL3001 REC/PLAY
1.8Vp-p (10msec.div.)
IC3202(PLANET)
FRP
SSP
MATRIX
LIMITER
3V
CFG2 IN
H1+
H1-
H2+
H2-
H3+
H3-
CFG1 IN
FP2201 4
FP2201 18
FP2201 10
FP2201 6
FP2201 12
FP2201 7
FP2201 5
FP2201 3
FP2201 11
FP2201 17
HALL IC1
HALL IC2
HALL IC3
FG
CYL ON L
CYL FG
CYL TORQUE
UNLOAD
LOAD
CAP RSF
CAP TORQUE
TORQUE LIMIT
CAP FG
CAPSTAN R/S/F
CAPSTAN EC
TORQUE LIMIT
FG AMP COMP.

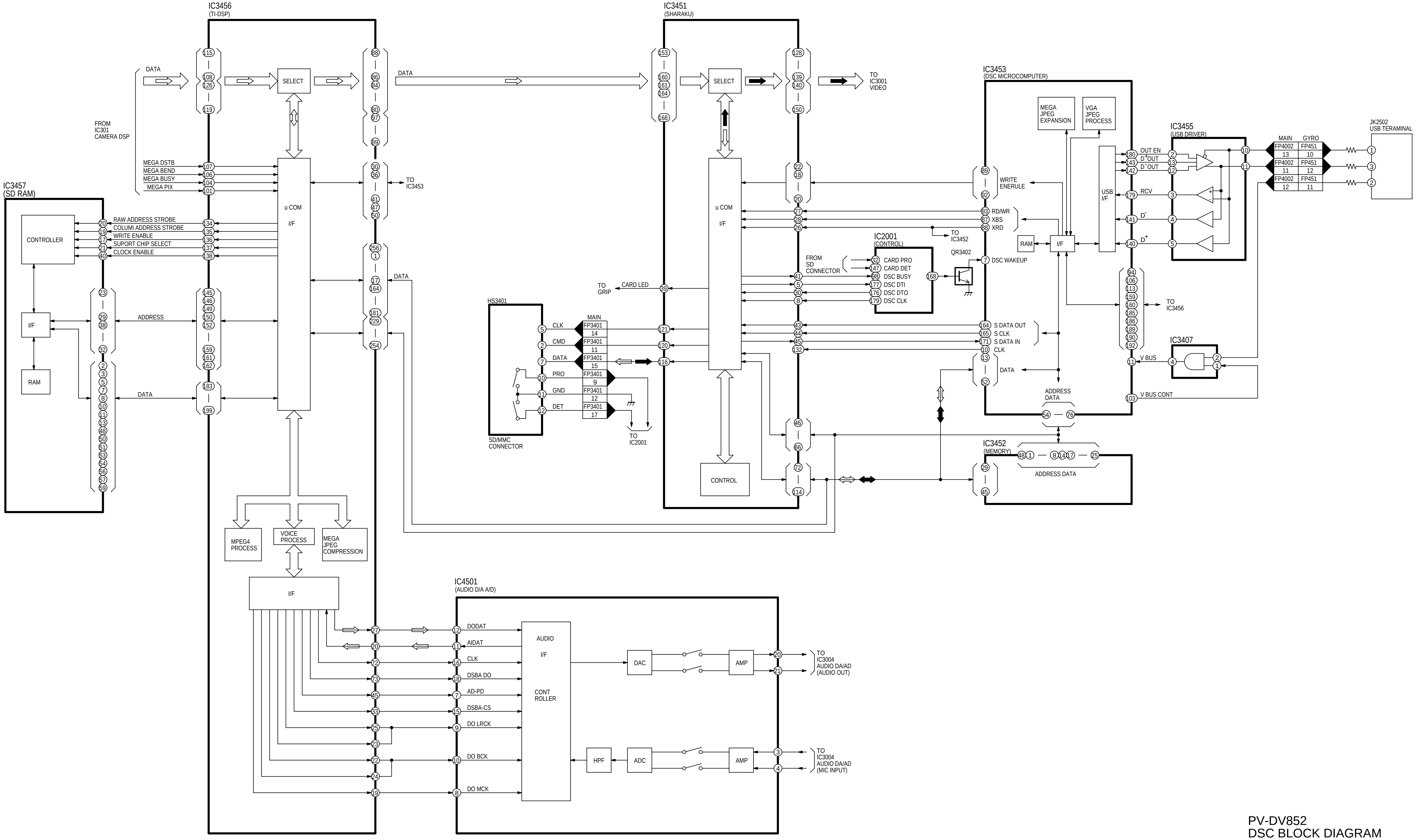
PV-DV852
CONTROL 2 BLOCK DIAGRAM

10.6. VIDEO BLOCK DIAGRAM


: MAIN SIGNAL PATH IN REC MODE
: MAIN SIGNAL PATH IN PLAYBACK MODE
FROM CAMERA IC301
IC3456 (TI DSP)
C IN
Y IN
C OUT
Y OUT
IC3451 (SHARAKU)
C IN
Y IN
C OUT
Y OUT
IC3001(TOPS)
DIGITAL EFFCT PROCESS
C DATA
Y DATA
DAC
DV FORMAT PROCESS
AUDIO PROCESS
CLK27
CLK135
C
Y
CLK24
IC3501(INPUT)
CLK CHANGE
TBC
AGC
Y/C SEP
CLAP
AD
Y IN
C IN
S VIDEO Ⓛ
u COM I/F
STP
SDA
SCK
FROM CONTROL IC2001
IC3504
IC3503
IC3002(AV DRIVE)
ATT
BUFF
CLAP
DOS
MIX
C OUT
V OUT
Y OUT
Lch
Rch
LPF
SP OUT
LINE L
LINE R
IC3004(AUDIO AD/DA)
AMP
DAC
HPF
ADC
CONTROL REGISTOR I/F
AUDIO I/F
SBA CS
SBA CLK
SBA DO
SBA DI
TO CONTROL IC2001
LRCK
BCLK
SDTO
SDTI
MIC L
MIC R
MAIN
FLASH
GYRP
MIC
TO S JACK JK3001
SPEAKER
TO AV 4P JK4001
FROM MIC
CL3208 REC
2.7Vp-p (0.5msec.div.)
IC3201(RIO)
I/F
ENCODER
VITERBI
EQ
RF AMP
DATA/ ADDRESS
TO CONTROL
HSE
RF
ATF
PB Ⓗ
REC
HID1
HID2
IC5001(HEAD/REC AMP)
GCA
AGC DET
AGC
AMP
LPF
LOGIC
IC3202(PLANET)
DATA/ ADDRESS
DV I/F
TPB-
TPB+
TPA-
TPA+
CL3203 PLAY
0.4Vp-p (0.5msec.div.)
TO DV TERMINAL JK3801
FP4001
FP7001
FP2206
FP4002
FP451
FP4901
FP5001

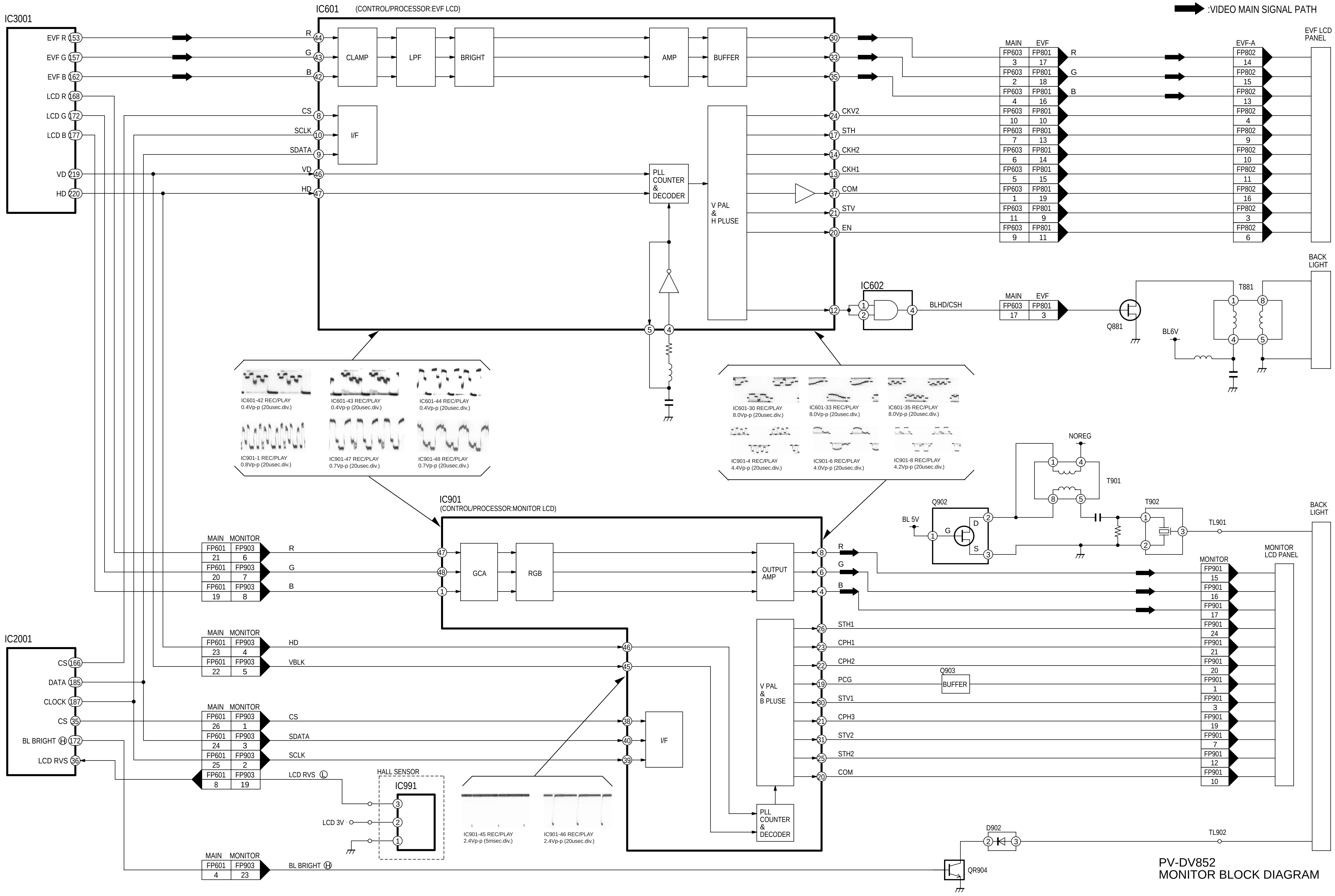
PV-DV852
VIDEO BLOCK DIAGRAM

10.7. DSC BLOCK DIAGRAM


IC3456
(TI-DSP)
IC3451
(SHARAKU)
IC3453
(DSC MICROCOMPUTER)
IC3455
(USB DRIVER)
JK2502
USB TERAMINAL
IC3457
(SD RAM)
IC2001
(CONTROL)
IC3452
(MEMORY)
IC3407
IC4501
(AUDIO D/A A/D)
HS3401
SD/MMC
CONNECTOR
DATA
SELECT
FROM
IC301
CAMERA DSP
MEGA DSTB
MEGA BEND
MEGA BUSY
MEGA PIX
u COM
I/F
TO
IC3453
TO
IC3001
VIDEO
CONTROLLER
RAW ADDRESS STROBE
COLUMI ADDRESS STROBE
WRITE ENABLE
SUPORT CHIP SELECT
CLOCK ENABLE
ADDRESS
RAM
MPEG4
PROCESS
VOICE
PROCESS
MEGA
JPEG
COMPRESSION
TO
GRIP
CARD LED
MAIN
CLK
CMD
PRO
GND
DET
FP3401
TO
IC2001
FROM
SD
CONNECTOR
CARD PRO
CARD DET
DSC BUSY
DSC DTI
DSC DTO
DSC CLK
TO
IC3452
QR3402
DSC WAKEUP
WRITE
ENERULE
RD/WR
XBS
XRD
MEGA
JPEG
EXPANSION
VGA
JPEG
PROCESS
USB
I/F
S DATA OUT
S CLK
S DATA IN
ADDRESS
ADDRESS DATA
CONTROL
OUT EN
D+OUT
D-OUT
RCV
D-
D+
TO
IC3456
V BUS
V BUS CONT
MAIN
GYRO
FP4002
FP451
DODAT
AIDAT
DSBA DO
AD-PD
DSBA-CS
DO LRCK
DO BCK
DO MCK
AUDIO
I/F
CONT
ROLLER
DAC
AMP
HPF
ADC
TO
IC3004
AUDIO DA/AD
(AUDIO OUT)
TO
IC3004
AUDIO DA/AD
(MIC INPUT)

PV-DV852
DSC BLOCK DIAGRAM

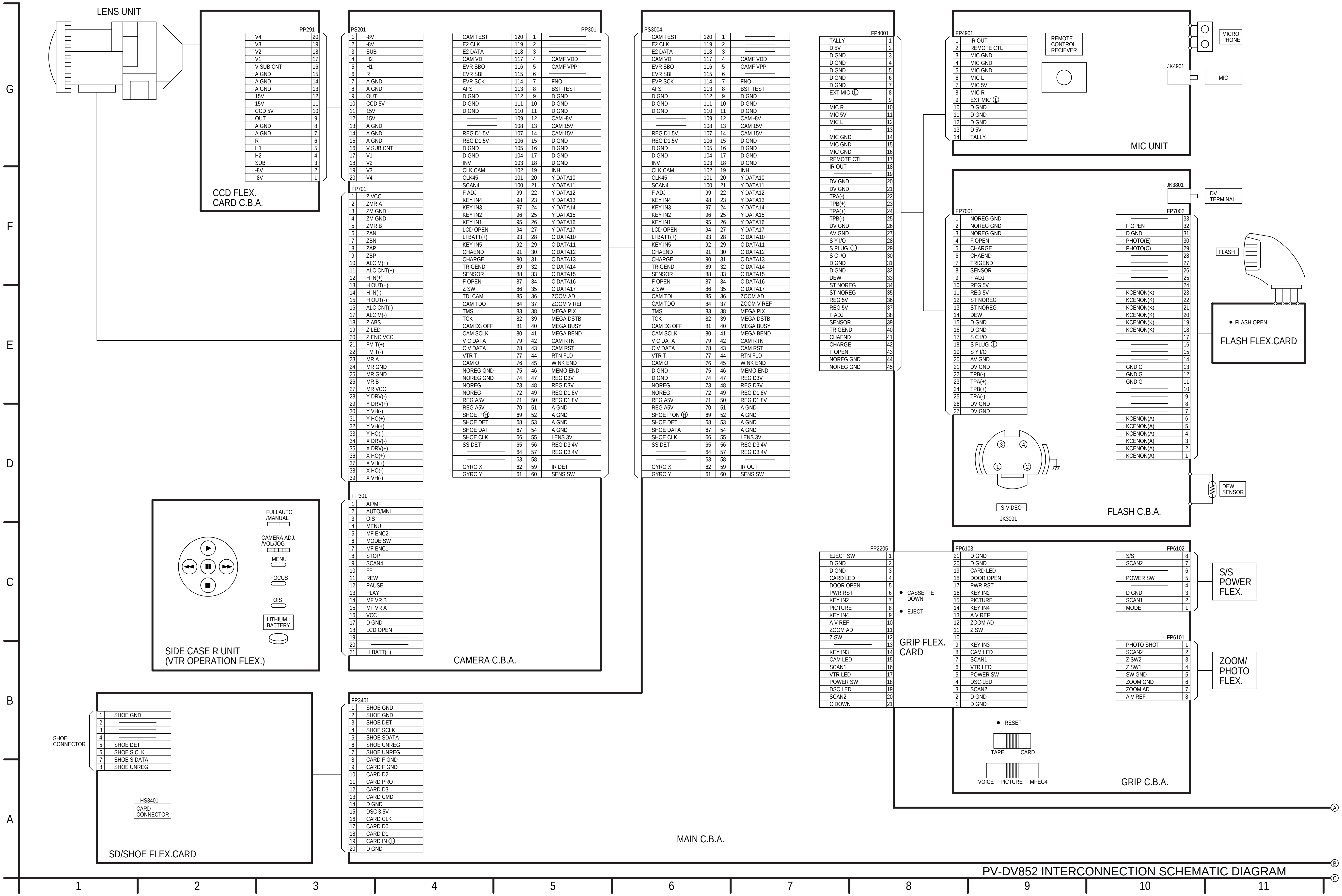
10.8. MONITOR BLOCK DIAGRAM


:VIDEO MAIN SIGNAL PATH
IC3001
EVF R 153
EVF G 157
EVF B 162
LCD R 168
LCD G 172
LCD B 177
VD 219
HD 220
IC601
(CONTROL/PROCESSOR:EVF LCD)
R 44
G 43
B 42
CS 8
SCLK 10
SDATA 9
VD 46
HD 47
CLAMP
LPF
BRIGHT
AMP
BUFFER
I/F
PLL COUNTER & DECODER
V PAL & H PLUSE
30
33
35
CKV2 24
STH 17
CKH2 14
CKH1 13
COM 37
STV 21
EN 20
12
5
4
IC602
BLHD/CSH
MAIN EVF
FP603 FP801
R
G
B
EVF-A
FP802
EVF LCD PANEL
BACK LIGHT
T881
Q881
BL6V
IC601-42 REC/PLAY 0.4Vp-p (20usec.div.)
IC601-43 REC/PLAY 0.4Vp-p (20usec.div.)
IC601-44 REC/PLAY 0.4Vp-p (20usec.div.)
IC901-1 REC/PLAY 0.8Vp-p (20usec.div.)
IC901-47 REC/PLAY 0.7Vp-p (20usec.div.)
IC901-48 REC/PLAY 0.7Vp-p (20usec.div.)
IC601-30 REC/PLAY 8.0Vp-p (20usec.div.)
IC601-33 REC/PLAY 8.0Vp-p (20usec.div.)
IC601-35 REC/PLAY 8.0Vp-p (20usec.div.)
IC901-4 REC/PLAY 4.4Vp-p (20usec.div.)
IC901-6 REC/PLAY 4.0Vp-p (20usec.div.)
IC901-8 REC/PLAY 4.2Vp-p (20usec.div.)
NOREG
T901
Q902
T902
BL 5V
G D S
TL901
BACK LIGHT
MONITOR LCD PANEL
IC901
(CONTROL/PROCESSOR:MONITOR LCD)
MAIN MONITOR
FP601 FP903
R
G
B
47
48
1
GCA
RGB
OUTPUT AMP
8
6
4
MONITOR
FP901
STH1 26
CPH1 23
CPH2 22
PCG 19
STV1 30
CPH3 21
STV2 31
STH2 25
COM 20
V PAL & B PLUSE
Q903
BUFFER
IC2001
CS 166
DATA 185
CLOCK 187
CS 35
BL BRIGHT H 172
LCD RVS 36
HD
VBLK
46
45
CS
SDATA
SCLK
38
40
39
LCD RVS L
HALL SENSOR
IC991
LCD 3V
IC901-45 REC/PLAY 2.4Vp-p (5msec.div.)
IC901-46 REC/PLAY 2.4Vp-p (20usec.div.)
PLL COUNTER & DECODER
D902
TL902
QR904
BL BRIGHT H

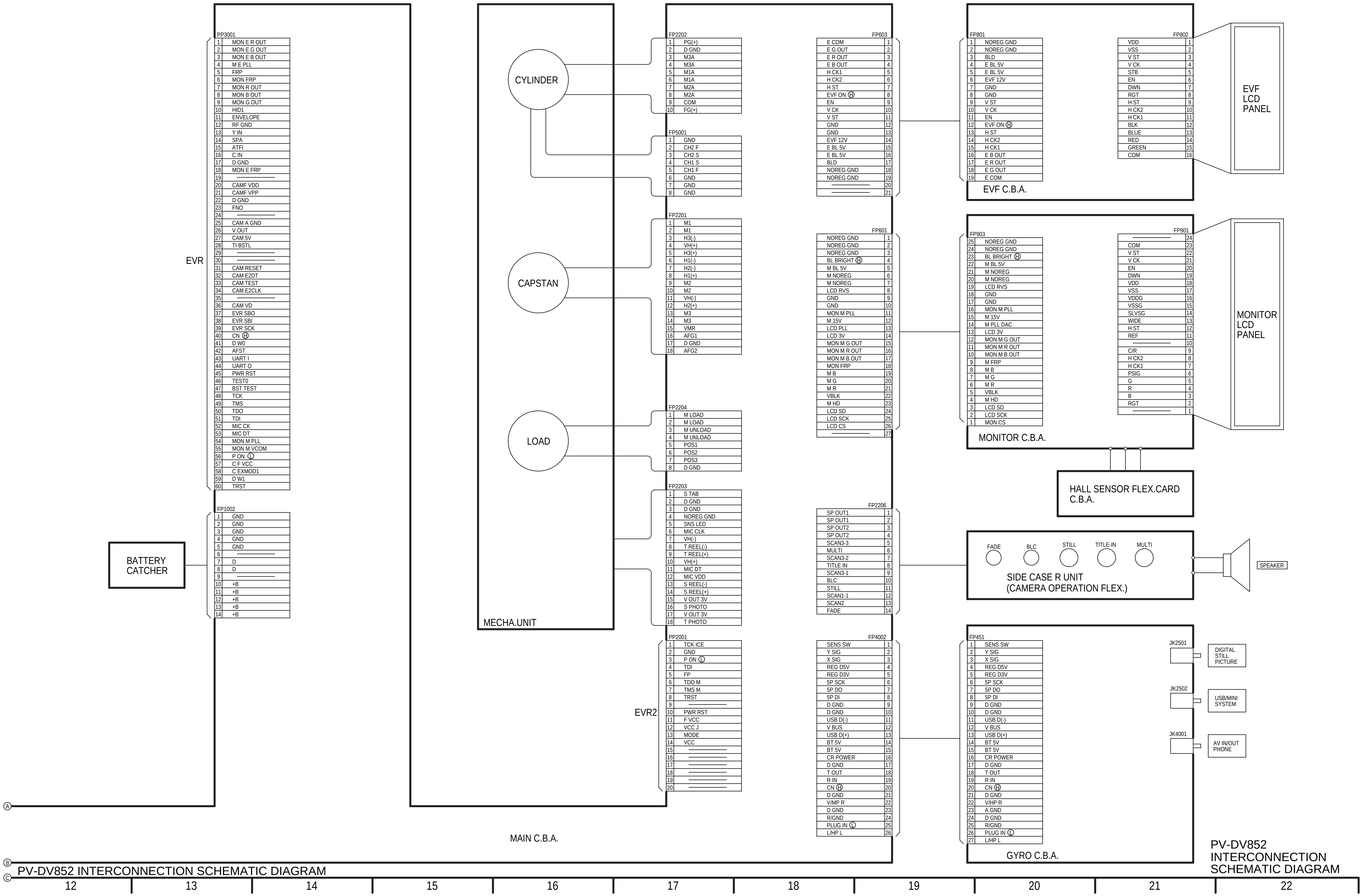
PV-DV852
MONITOR BLOCK DIAGRAM

11 SCHEMATIC DIAGRAMS

11.1. INTERCONNECTION SCHEMATIC DIAGRAM


LENS UNIT
PP291
CCD FLEX. CARD C.B.A.
PS201
PP301
FP701
FP301
CAMERA C.B.A.
PS3004
FP4001
MAIN C.B.A.
FP4901
REMOTE CONTROL RECIEVER
MICRO PHONE
JK4901
MIC
MIC UNIT
JK3801
DV TERMINAL
FP7001
FP7002
FLASH
FLASH OPEN
FLASH FLEX.CARD
DEW SENSOR
S-VIDEO
JK3001
FLASH C.B.A.
FULLAUTO /MANUAL
CAMERA ADJ. /VOL/JOG
MENU
FOCUS
OIS
LITHIUM BATTERY
SIDE CASE R UNIT (VTR OPERATION FLEX.)
FP2205
CASSETTE DOWN
EJECT
GRIP FLEX. CARD
FP6103
FP6102
FP6101
S/S POWER FLEX.
ZOOM/ PHOTO FLEX.
RESET
TAPE CARD
VOICE PICTURE MPEG4
GRIP C.B.A.
SHOE CONNECTOR
HS3401
CARD CONNECTOR
SD/SHOE FLEX.CARD
FP3401
A
B
C
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

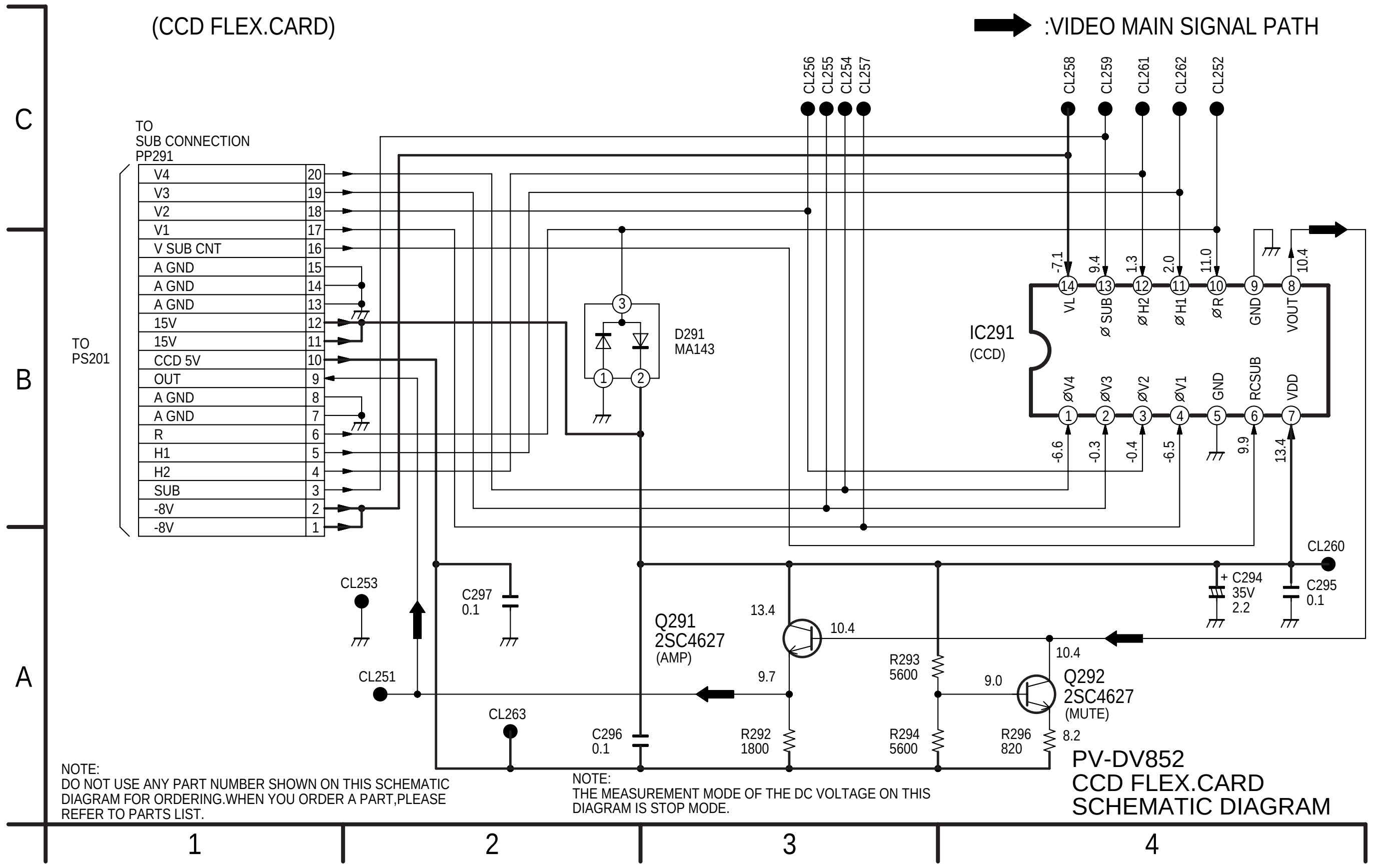
PV-DV852 INTERCONNECTION SCHEMATIC DIAGRAM


EVR
PP3001
1 MON E R OUT
2 MON E G OUT
3 MON E B OUT
4 M E PLL
5 FRP
6 MON FRP
7 MON R OUT
8 MON B OUT
9 MON G OUT
10 HID1
11 ENVELOPE
12 RF GND
13 Y IN
14 SPA
15 ATFI
16 C IN
17 D GND
18 MON E FRP
19
20 CAMF VDD
21 CAMF VPP
22 D GND
23 FNO
24
25 CAM A GND
26 V OUT
27 CAM 5V
28 TI BSTL
29
30
31 CAM RESET
32 CAM E2DT
33 CAM TEST
34 CAM E2CLK
35
36 CAM VD
37 EVR SBO
38 EVR SBI
39 EVR SCK
40 CN Ⓗ
41 D W0
42 AFST
43 UART I
44 UART O
45 PWR RST
46 TEST0
47 BST TEST
48 TCK
49 TMS
50 TDO
51 TDI
52 MIC CK
53 MIC DT
54 MON M PLL
55 MON M VCOM
56 P ON Ⓛ
57 C F VCC
58 C EXMOD1
59 D W1
60 TRST
BATTERY CATCHER
FP1002
1 GND
2 GND
3 GND
4 GND
5 GND
6
7 D
8 D
9
10 +B
11 +B
12 +B
13 +B
14 +B
CYLINDER
CAPSTAN
LOAD
MECHA.UNIT
FP2202
1 PG(+)
2 D GND
3 M3A
4 M3A
5 M1A
6 M1A
7 M2A
8 M2A
9 COM
10 FG(+)
FP5001
1 GND
2 CH2 F
3 CH2 S
4 CH1 S
5 CH1 F
6 GND
7 GND
8 GND
FP2201
1 M1
2 M1
3 H3(-)
4 VH(+)
5 H3(+)
6 H1(-)
7 H2(-)
8 H1(+)
9 M2
10 M2
11 VH(-)
12 H2(+)
13 M3
14 M3
15 VMR
16 AFG1
17 D GND
18 AFG2
FP2204
1 M LOAD
2 M LOAD
3 M UNLOAD
4 M UNLOAD
5 POS1
6 POS2
7 POS3
8 D GND
FP2203
1 S TAB
2 D GND
3 D GND
4 NOREG GND
5 SNS LED
6 MIC CLK
7 VH(-)
8 T REEL(-)
9 T REEL(+)
10 VH(+)
11 MIC DT
12 MIC VDD
13 S REEL(-)
14 S REEL(+)
15 V OUT 3V
16 S PHOTO
17 V OUT 3V
18 T PHOTO
EVR2
FP2001
1 TCK ICE
2 GND
3 P ON Ⓛ
4 TDI
5 FP
6 TDO M
7 TMS M
8 TRST
9
10 PWR RST
11 F VCC
12 VCC J
13 MODE
14 VCC
15
16
17
18
19
20
FP603
E COM 1
E G OUT 2
E R OUT 3
E B OUT 4
H CK1 5
H CK2 6
H ST 7
EVF ON Ⓗ 8
EN 9
V CK 10
V ST 11
GND 12
GND 13
EVF 12V 14
E BL 5V 15
E BL 5V 16
BLD 17
NOREG GND 18
NOREG GND 19
20
21
FP601
NOREG GND 1
NOREG GND 2
NOREG GND 3
BL BRIGHT Ⓗ 4
M BL 5V 5
M NOREG 6
M NOREG 7
LCD RVS 8
GND 9
GND 10
MON M PLL 11
M 15V 12
LCD PLL 13
LCD 3V 14
MON M G OUT 15
MON M R OUT 16
MON M B OUT 17
MON FRP 18
M B 19
M G 20
M R 21
VBLK 22
M HD 23
LCD SD 24
LCD SCK 25
LCD CS 26
27
FP2206
SP OUT1 1
SP OUT1 2
SP OUT2 3
SP OUT2 4
SCAN3-3 5
MULTI 6
SCAN3-2 7
TITLE IN 8
SCAN3-1 9
BLC 10
STILL 11
SCAN1-1 12
SCAN2 13
FADE 14
FP4002
SENS SW 1
Y SIG 2
X SIG 3
REG D5V 4
REG D3V 5
5P SCK 6
5P DO 7
5P DI 8
D GND 9
D GND 10
USB D(-) 11
V BUS 12
USB D(+) 13
BT 5V 14
BT 5V 15
CR POWER 16
D GND 17
T OUT 18
R IN 19
CN Ⓗ 20
D GND 21
V/MP R 22
D GND 23
R/GND 24
PLUG IN Ⓛ 25
L/HP L 26
MAIN C.B.A.
FP801
1 NOREG GND
2 NOREG GND
3 BLD
4 E BL 5V
5 E BL 5V
6 EVF 12V
7 GND
8 GND
9 V ST
10 V CK
11 EN
12 EVF ON Ⓗ
13 H ST
14 H CK2
15 H CK1
16 E B OUT
17 E R OUT
18 E G OUT
19 E COM
FP802
VDD 1
VSS 2
V ST 3
V CK 4
STB 5
EN 6
DWN 7
RGT 8
H ST 9
H CK2 10
H CK1 11
BLK 12
BLUE 13
RED 14
GREEN 15
COM 16
EVF LCD PANEL
EVF C.B.A.
FP903
25 NOREG GND
24 NOREG GND
23 BL BRIGHT Ⓗ
22 M BL 5V
21 M NOREG
20 M NOREG
19 LCD RVS
18 GND
17 GND
16 MON M PLL
15 M 15V
14 M PLL DAC
13 LCD 3V
12 MON M G OUT
11 MON M R OUT
10 MON M B OUT
9 M FRP
8 M B
7 M G
6 M R
5 VBLK
4 M HD
3 LCD SD
2 LCD SCK
1 MON CS
FP901
24
COM 23
V ST 22
V CK 21
EN 20
DWN 19
VDD 18
VSS 17
VDDG 16
VSSG 15
SLVSG 14
WIDE 13
H ST 12
REF 11
10
C/R 9
H CK2 8
H CK1 7
PSIG 6
G 5
R 4
B 3
RGT 2
1
MONITOR LCD PANEL
MONITOR C.B.A.
HALL SENSOR FLEX.CARD C.B.A.
FADE
BLC
STILL
TITLE-IN
MULTI
SIDE CASE R UNIT (CAMERA OPERATION FLEX.)
SPEAKER
FP451
1 SENS SW
2 Y SIG
3 X SIG
4 REG D5V
5 REG D3V
6 5P SCK
7 5P DO
8 5P DI
9 D GND
10 D GND
11 USB D(-)
12 V BUS
13 USB D(+)
14 BT 5V
15 BT 5V
16 CR POWER
17 D GND
18 T OUT
19 R IN
20 CN Ⓗ
21 D GND
22 V/HP R
23 A GND
24 D GND
25 R/GND
26 PLUG IN Ⓛ
27 L/HP L
JK2501
DIGITAL STILL PICTURE
JK2502
USB/MINI SYSTEM
JK4001
AV IN/OUT PHONE
GYRO C.B.A.
Ⓐ
Ⓑ
Ⓒ
12
13
14
15
16
17
18
19
20
21
22

PV-DV852 INTERCONNECTION SCHEMATIC DIAGRAM

PV-DV852 INTERCONNECTION SCHEMATIC DIAGRAM

11.2. CCD FLEX. CARD SCHEMATIC DIAGRAM

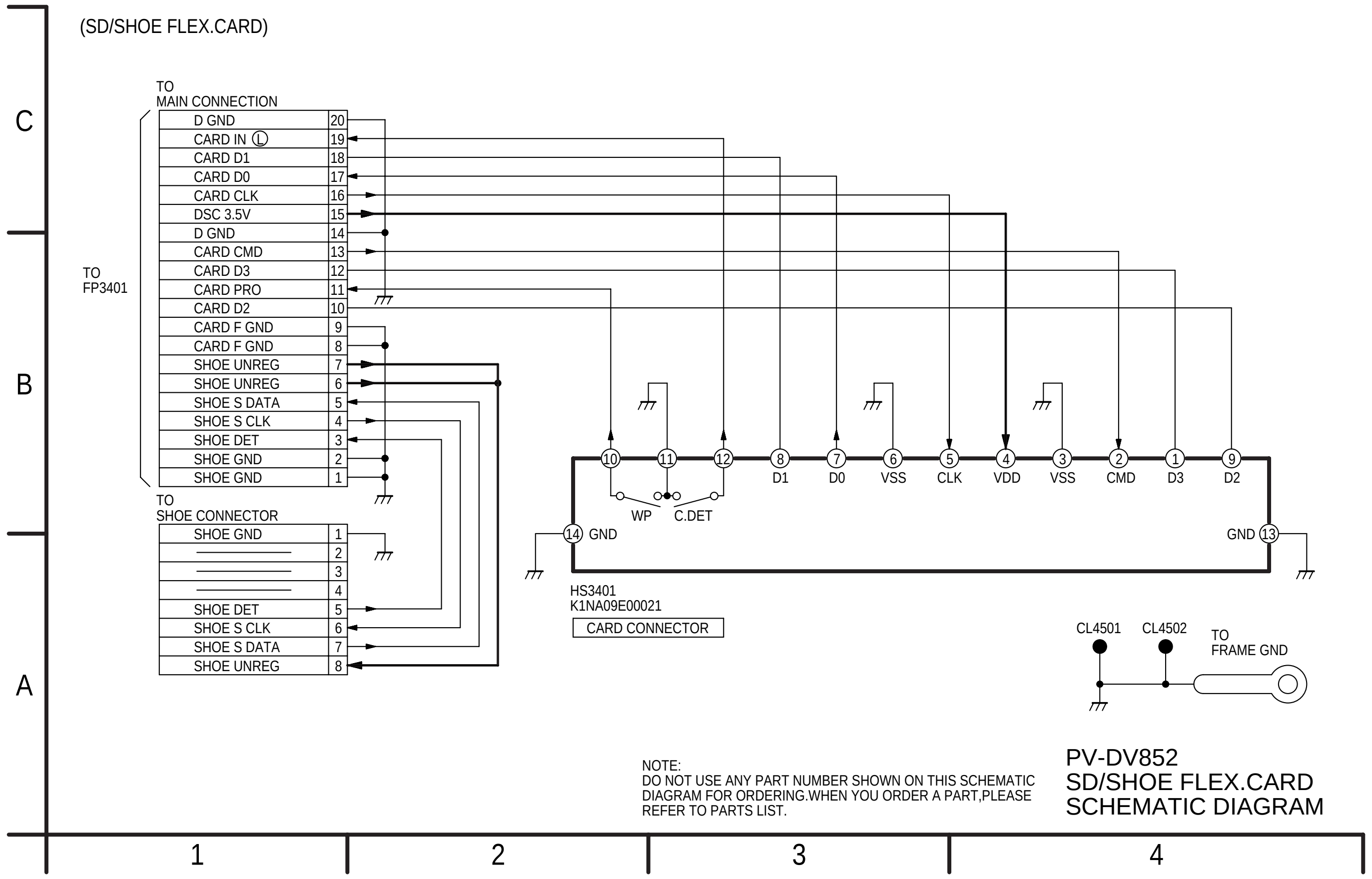

(CCD FLEX.CARD)
:VIDEO MAIN SIGNAL PATH
TO SUB CONNECTION PP291
TO PS201
V4 20
V3 19
V2 18
V1 17
V SUB CNT 16
A GND 15
A GND 14
A GND 13
15V 12
15V 11
CCD 5V 10
OUT 9
A GND 8
A GND 7
R 6
H1 5
H2 4
SUB 3
-8V 2
-8V 1
CL256 CL255 CL254 CL257
CL258 CL259 CL261 CL262 CL252
D291 MA143
IC291 (CCD)
VL ø SUB ø H2 ø H1 ø R GND VOUT
øV4 øV3 øV2 øV1 GND RCSUB VDD
-7.1 9.4 1.3 2.0 11.0 10.4
-6.6 -0.3 -0.4 -6.5 9.9 13.4
CL260
C294 35V 2.2
C295 0.1
C297 0.1
CL253
CL251
CL263
Q291 2SC4627 (AMP)
13.4 10.4 9.7
C296 0.1
R292 1800
R293 5600
R294 5600
R296 820
Q292 2SC4627 (MUTE)
10.4 9.0 8.2
1 2 3 4
A B C

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

PV-DV852
CCD FLEX.CARD
SCHEMATIC DIAGRAM

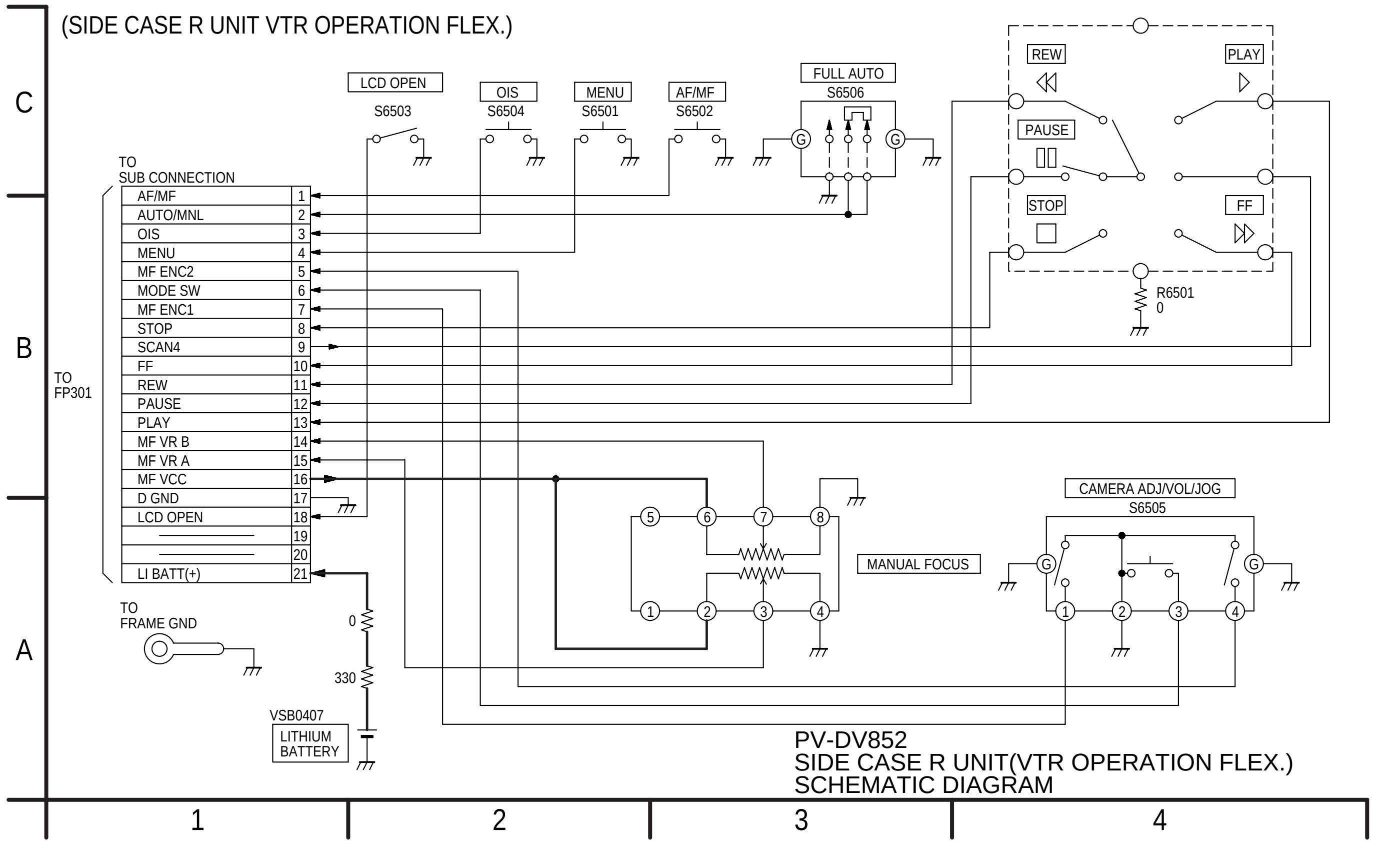
11.3. SD/SHOE FLEX. CARD SCHEMATIC DIAGRAM


(SD/SHOE FLEX.CARD)
TO MAIN CONNECTION
TO FP3401
D GND 20
CARD IN Ⓛ 19
CARD D1 18
CARD D0 17
CARD CLK 16
DSC 3.5V 15
D GND 14
CARD CMD 13
CARD D3 12
CARD PRO 11
CARD D2 10
CARD F GND 9
CARD F GND 8
SHOE UNREG 7
SHOE UNREG 6
SHOE S DATA 5
SHOE S CLK 4
SHOE DET 3
SHOE GND 2
SHOE GND 1
TO SHOE CONNECTOR
SHOE GND 1
2
3
4
SHOE DET 5
SHOE S CLK 6
SHOE S DATA 7
SHOE UNREG 8
D1 D0 VSS CLK VDD VSS CMD D3 D2
WP C.DET
GND 14
GND 13
HS3401 K1NA09E00021
CARD CONNECTOR
CL4501 CL4502
TO FRAME GND
1 2 3 4
A B C

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

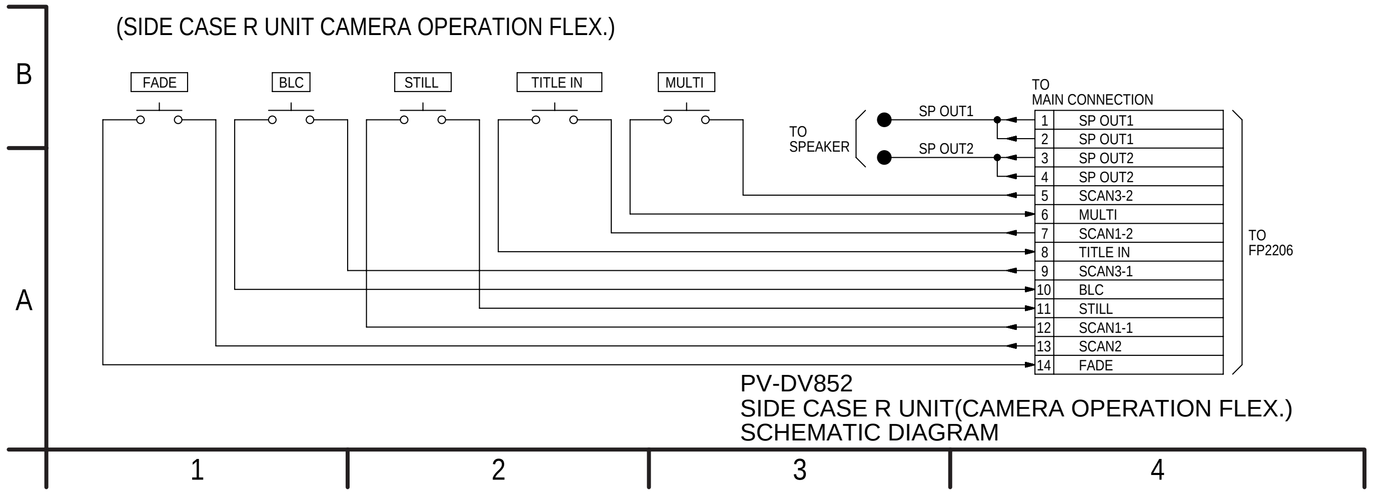
PV-DV852
SD/SHOE FLEX.CARD
SCHEMATIC DIAGRAM

11.4. SIDE CASE R UNIT (VTR OPERATION FLEX.) SCHEMATIC DIAGRAM


(SIDE CASE R UNIT VTR OPERATION FLEX.)
TO SUB CONNECTION
TO FP301
AF/MF 1
AUTO/MNL 2
OIS 3
MENU 4
MF ENC2 5
MODE SW 6
MF ENC1 7
STOP 8
SCAN4 9
FF 10
REW 11
PAUSE 12
PLAY 13
MF VR B 14
MF VR A 15
MF VCC 16
D GND 17
LCD OPEN 18
19
20
LI BATT(+) 21
LCD OPEN S6503
OIS S6504
MENU S6501
AF/MF S6502
FULL AUTO S6506
REW PLAY PAUSE STOP FF
R6501 0
CAMERA ADJ/VOL/JOG S6505
MANUAL FOCUS
TO FRAME GND
0
330
VSB0407
LITHIUM BATTERY
1 2 3 4
A B C

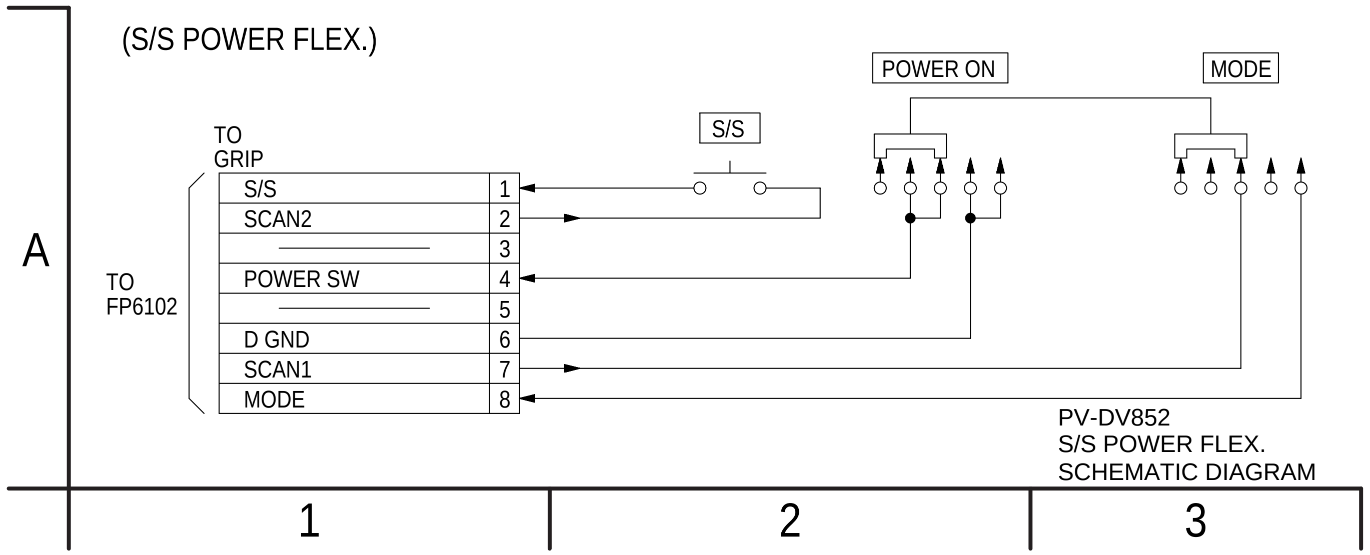
PV-DV852
SIDE CASE R UNIT(VTR OPERATION FLEX.)
SCHEMATIC DIAGRAM

11.5. SIDE CASE R UNIT (CAMERA OPERATION FLEX.) SCHEMATIC DIAGRAM

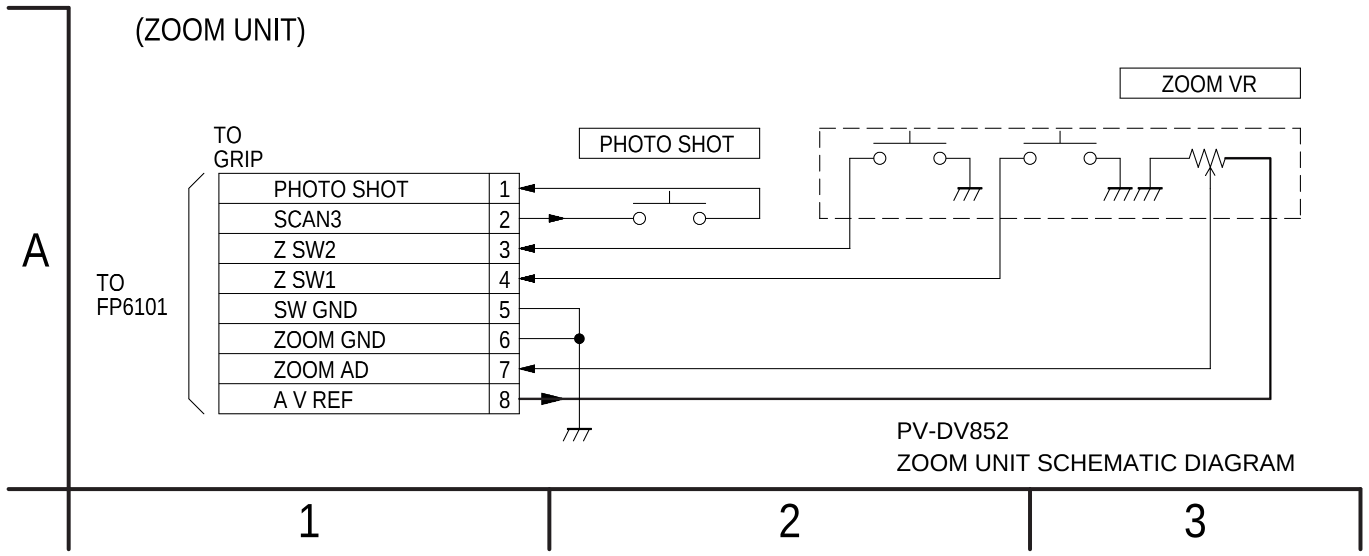

(SIDE CASE R UNIT CAMERA OPERATION FLEX.)
FADE BLC STILL TITLE IN MULTI
TO SPEAKER
SP OUT1
SP OUT2
TO MAIN CONNECTION
TO FP2206
1 SP OUT1
2 SP OUT1
3 SP OUT2
4 SP OUT2
5 SCAN3-2
6 MULTI
7 SCAN1-2
8 TITLE IN
9 SCAN3-1
10 BLC
11 STILL
12 SCAN1-1
13 SCAN2
14 FADE
1 2 3 4
A B

PV-DV852
SIDE CASE R UNIT(CAMERA OPERATION FLEX.)
SCHEMATIC DIAGRAM

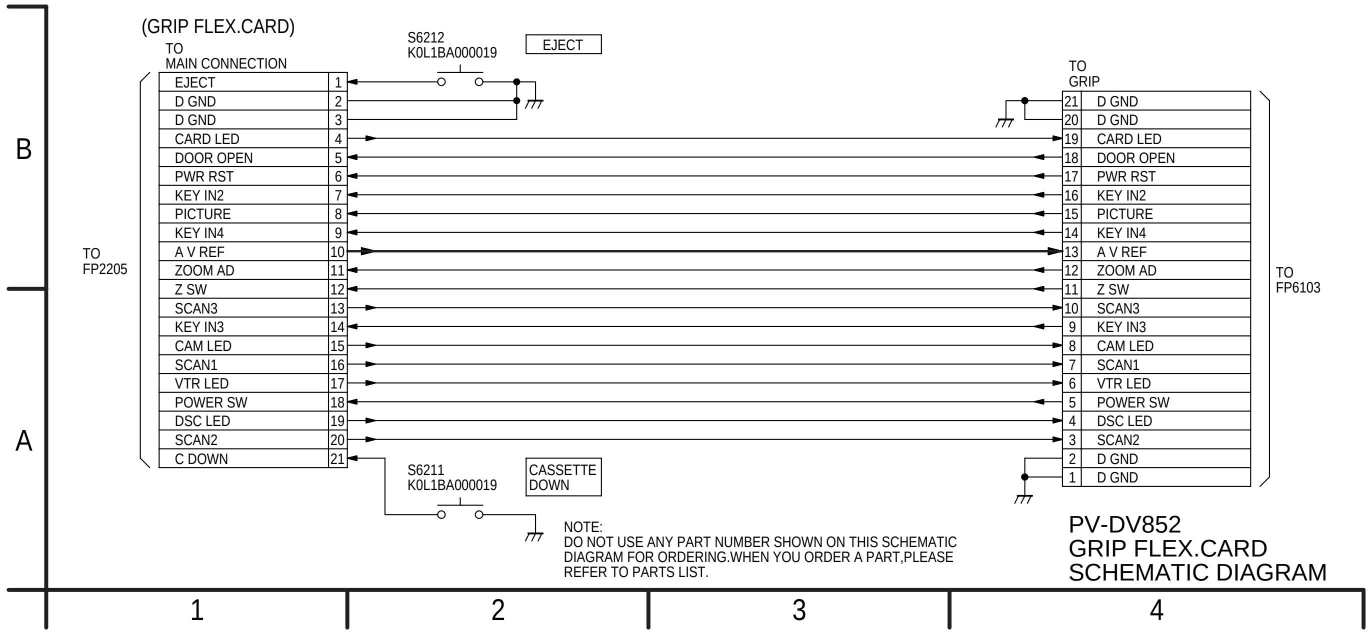
11.6. S/S POWER FLEX. SCHEMATIC DIAGRAM


(S/S POWER FLEX.)
TO GRIP
TO FP6102
S/S 1
SCAN2 2
3
POWER SW 4
5
D GND 6
SCAN1 7
MODE 8
S/S
POWER ON
MODE
PV-DV852
S/S POWER FLEX.
SCHEMATIC DIAGRAM
A
1
2
3

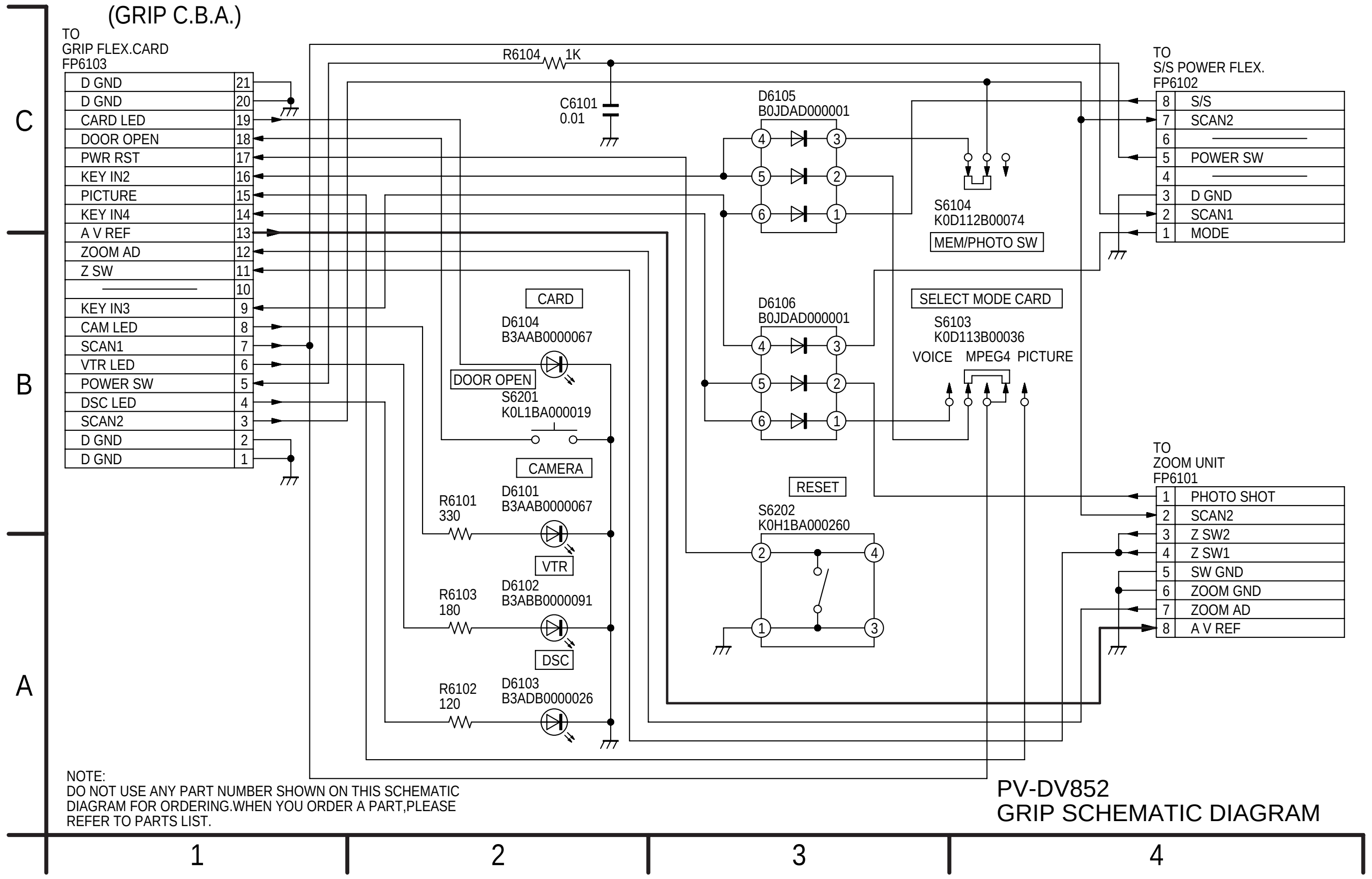
11.7. ZOOM UNIT SCHEMATIC DIAGRAM


(ZOOM UNIT)
TO GRIP
TO FP6101
PHOTO SHOT 1
SCAN3 2
Z SW2 3
Z SW1 4
SW GND 5
ZOOM GND 6
ZOOM AD 7
A V REF 8
PHOTO SHOT
ZOOM VR
PV-DV852
ZOOM UNIT SCHEMATIC DIAGRAM
A
1
2
3

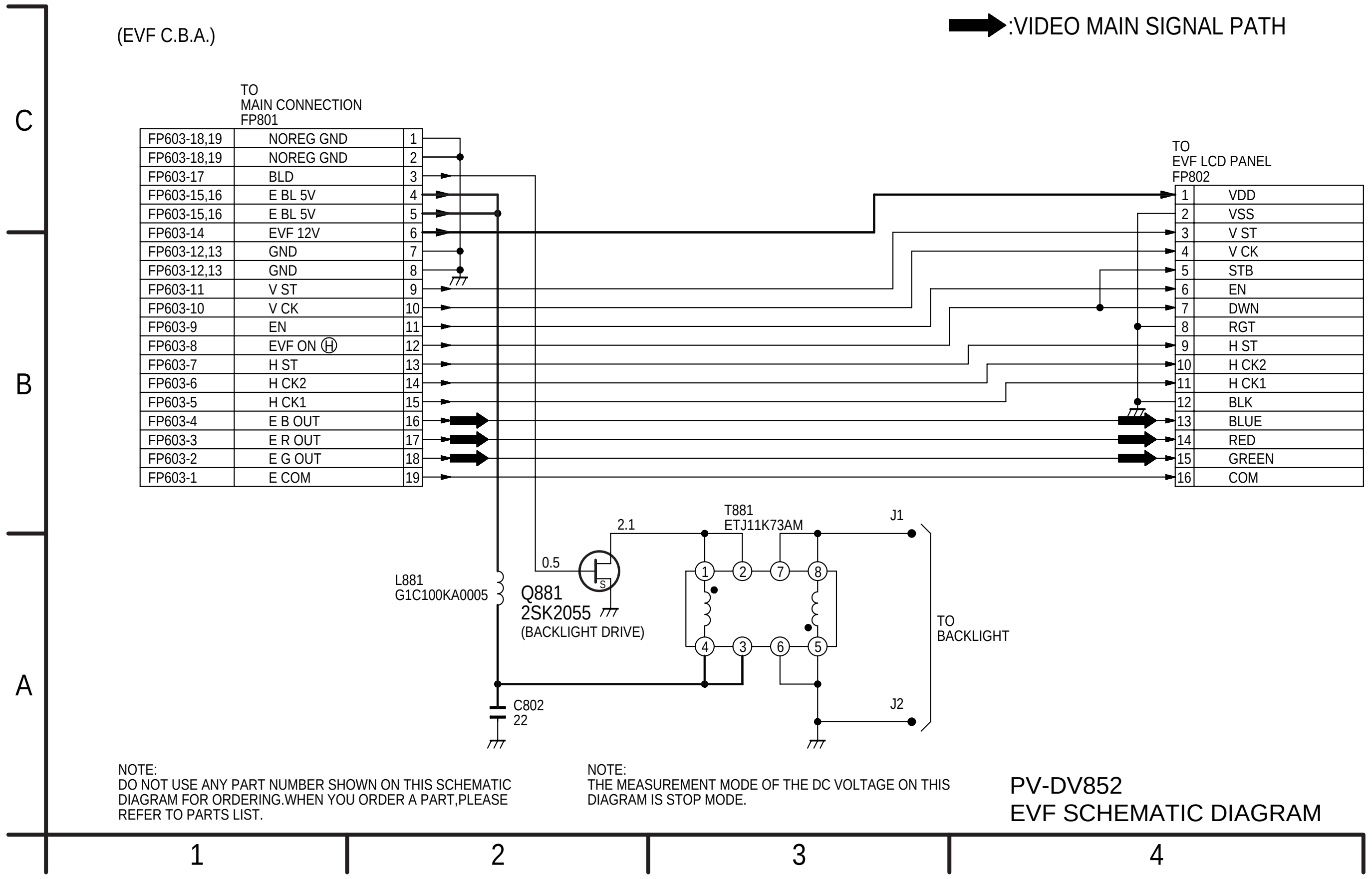
11.8. GRIP FLEX. CARD SCHEMATIC DIAGRAM


(GRIP FLEX.CARD)
TO MAIN CONNECTION
TO FP2205
EJECT 1
D GND 2
D GND 3
CARD LED 4
DOOR OPEN 5
PWR RST 6
KEY IN2 7
PICTURE 8
KEY IN4 9
A V REF 10
ZOOM AD 11
Z SW 12
SCAN3 13
KEY IN3 14
CAM LED 15
SCAN1 16
VTR LED 17
POWER SW 18
DSC LED 19
SCAN2 20
C DOWN 21
S6212
K0L1BA000019
EJECT
S6211
K0L1BA000019
CASSETTE DOWN
TO GRIP
TO FP6103
21 D GND
20 D GND
19 CARD LED
18 DOOR OPEN
17 PWR RST
16 KEY IN2
15 PICTURE
14 KEY IN4
13 A V REF
12 ZOOM AD
11 Z SW
10 SCAN3
9 KEY IN3
8 CAM LED
7 SCAN1
6 VTR LED
5 POWER SW
4 DSC LED
3 SCAN2
2 D GND
1 D GND
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
PV-DV852
GRIP FLEX.CARD
SCHEMATIC DIAGRAM
B
A
1
2
3
4

11.9. GRIP SCHEMATIC DIAGRAM


(GRIP C.B.A.)
TO GRIP FLEX.CARD FP6103
D GND 21
D GND 20
CARD LED 19
DOOR OPEN 18
PWR RST 17
KEY IN2 16
PICTURE 15
KEY IN4 14
A V REF 13
ZOOM AD 12
Z SW 11
10
KEY IN3 9
CAM LED 8
SCAN1 7
VTR LED 6
POWER SW 5
DSC LED 4
SCAN2 3
D GND 2
D GND 1
R6104 1K
C6101 0.01
D6105 B0JDAD000001
S6104 K0D112B00074
MEM/PHOTO SW
D6106 B0JDAD000001
SELECT MODE CARD
S6103 K0D113B00036
VOICE
MPEG4
PICTURE
CARD
D6104 B3AAB0000067
DOOR OPEN
S6201 K0L1BA000019
CAMERA
R6101 330
D6101 B3AAB0000067
VTR
R6103 180
D6102 B3ABB0000091
DSC
R6102 120
D6103 B3ADB0000026
RESET
S6202 K0H1BA000260
TO S/S POWER FLEX. FP6102
8 S/S
7 SCAN2
6
5 POWER SW
4
3 D GND
2 SCAN1
1 MODE
TO ZOOM UNIT FP6101
1 PHOTO SHOT
2 SCAN2
3 Z SW2
4 Z SW1
5 SW GND
6 ZOOM GND
7 ZOOM AD
8 A V REF
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.
PV-DV852
GRIP SCHEMATIC DIAGRAM
C
B
A
1
2
3
4

11.10. EVF SCHEMATIC DIAGRAM

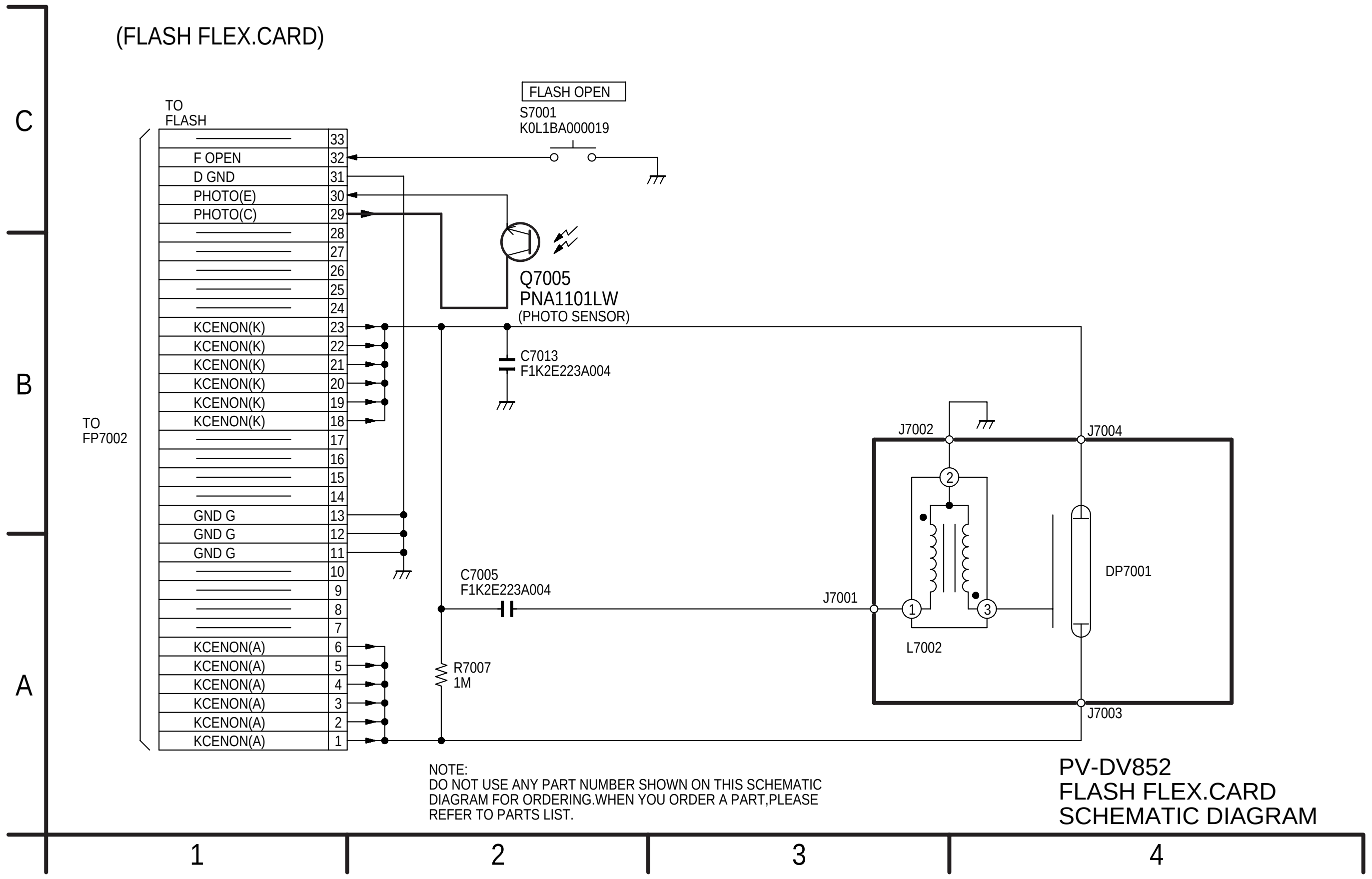

:VIDEO MAIN SIGNAL PATH
(EVF C.B.A.)
TO
MAIN CONNECTION
FP801
FP603-18,19 NOREG GND 1
FP603-18,19 NOREG GND 2
FP603-17 BLD 3
FP603-15,16 E BL 5V 4
FP603-15,16 E BL 5V 5
FP603-14 EVF 12V 6
FP603-12,13 GND 7
FP603-12,13 GND 8
FP603-11 V ST 9
FP603-10 V CK 10
FP603-9 EN 11
FP603-8 EVF ON Ⓗ 12
FP603-7 H ST 13
FP603-6 H CK2 14
FP603-5 H CK1 15
FP603-4 E B OUT 16
FP603-3 E R OUT 17
FP603-2 E G OUT 18
FP603-1 E COM 19
TO
EVF LCD PANEL
FP802
1 VDD
2 VSS
3 V ST
4 V CK
5 STB
6 EN
7 DWN
8 RGT
9 H ST
10 H CK2
11 H CK1
12 BLK
13 BLUE
14 RED
15 GREEN
16 COM
2.1
T881
ETJ11K73AM
J1
0.5
L881
G1C100KA0005
Q881
2SK2055
(BACKLIGHT DRIVE)
S
1
2
7
8
4
3
6
5
TO
BACKLIGHT
C802
22
J2
C
B
A
1
2
3
4

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

PV-DV852
EVF SCHEMATIC DIAGRAM

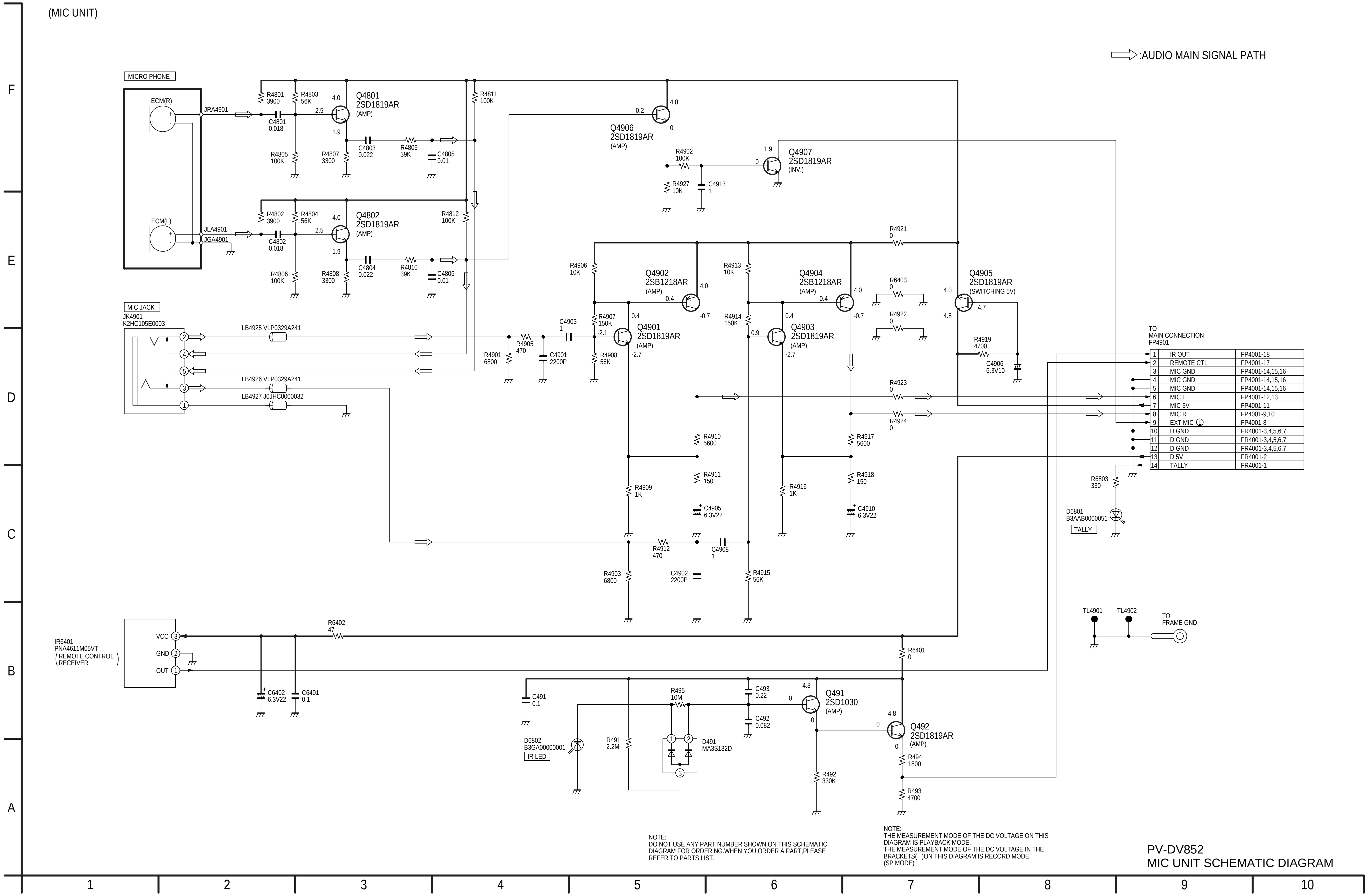
11.11. FLASH FLEX. SCHEMATIC DIAGRAM


(FLASH FLEX.CARD)
TO
FLASH
33
F OPEN 32
D GND 31
PHOTO(E) 30
PHOTO(C) 29
28
27
26
25
24
KCENON(K) 23
KCENON(K) 22
KCENON(K) 21
KCENON(K) 20
KCENON(K) 19
KCENON(K) 18
17
16
15
14
GND G 13
GND G 12
GND G 11
10
9
8
7
KCENON(A) 6
KCENON(A) 5
KCENON(A) 4
KCENON(A) 3
KCENON(A) 2
KCENON(A) 1
TO
FP7002
FLASH OPEN
S7001
K0L1BA000019
Q7005
PNA1101LW
(PHOTO SENSOR)
C7013
F1K2E223A004
J7002
J7004
2
DP7001
C7005
F1K2E223A004
J7001
1
3
L7002
R7007
1M
J7003
C
B
A
1
2
3
4

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

PV-DV852
FLASH FLEX.CARD
SCHEMATIC DIAGRAM

11.12. MIC UNIT SCHEMATIC DIAGRAM


(MIC UNIT)
:AUDIO MAIN SIGNAL PATH
MICRO PHONE
ECM(R)
ECM(L)
JRA4901
JLA4901
JGA4901
R4801 3900
R4803 56K
C4801 0.018
R4805 100K
R4807 3300
Q4801 2SD1819AR (AMP)
4.0
2.5
1.9
C4803 0.022
R4809 39K
C4805 0.01
R4811 100K
R4802 3900
R4804 56K
C4802 0.018
R4806 100K
R4808 3300
Q4802 2SD1819AR (AMP)
C4804 0.022
R4810 39K
C4806 0.01
R4812 100K
Q4906 2SD1819AR (AMP)
0.2
R4902 100K
R4927 10K
C4913 1
Q4907 2SD1819AR (INV.)
R4921 0
R4906 10K
Q4902 2SB1218AR (AMP)
R4907 150K
Q4901 2SD1819AR (AMP)
0.4
-0.7
-2.1
-2.7
R4913 10K
Q4904 2SB1218AR (AMP)
R4914 150K
Q4903 2SD1819AR (AMP)
0.9
R6403 0
R6422 0
Q4905 2SD1819AR (SWITCHING 5V)
4.7
4.8
R4919 4700
C4906 6.3V10
MIC JACK
JK4901
K2HC105E0003
LB4925 VLP0329A241
LB4926 VLP0329A241
LB4927 J0JHC0000032
C4903 1
R4905 470
R4901 6800
C4901 2200P
R4908 56K
R4923 0
R4924 0
R4910 5600
R4911 150
C4905 6.3V22
R4909 1K
R4917 5600
R4918 150
C4910 6.3V22
R4916 1K
R4912 470
C4908 1
R4903 6800
C4902 2200P
R4915 56K
R6803 330
D6801 B3AAB0000051
TALLY
TO MAIN CONNECTION FP4901
TL4901
TL4902
TO FRAME GND
IR6401
PNA4611M05VT
(REMOTE CONTROL RECEIVER)
VCC
GND
OUT
R6402 47
C6402 6.3V22
C6401 0.1
R6401 0
C491 0.1
R495 10M
C493 0.22
C492 0.082
Q491 2SD1030 (AMP)
Q492 2SD1819AR (AMP)
D6802 B3GA00000001
IR LED
R491 2.2M
D491 MA3S132D
R492 330K
R494 1800
R493 4700
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
10

TO
MAIN CONNECTION
FP4901

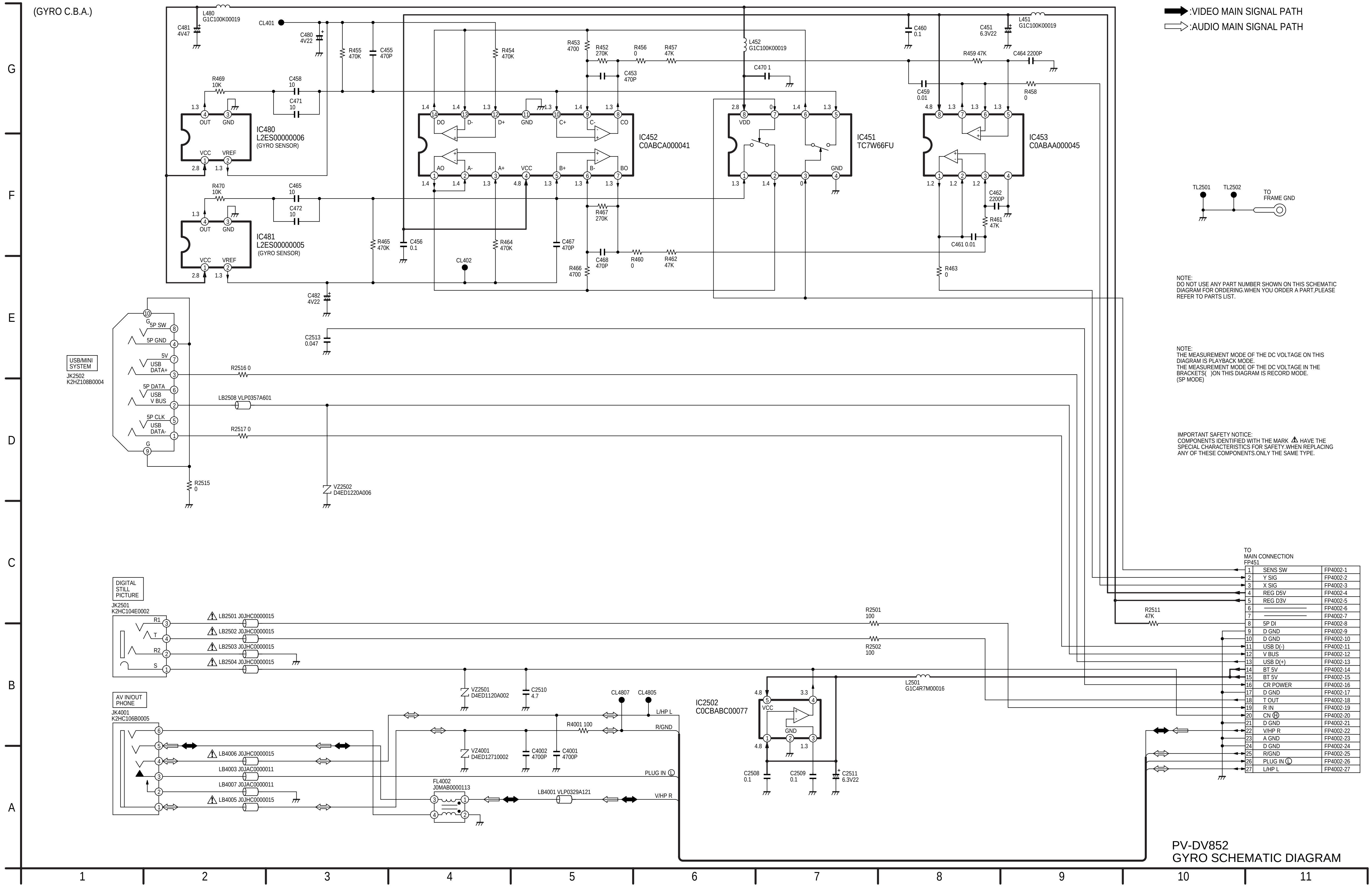
1	IR OUT	FP4001-18
2	REMOTE CTL	FP4001-17
3	MIC GND	FP4001-14,15,16
4	MIC GND	FP4001-14,15,16
5	MIC GND	FP4001-14,15,16
6	MIC L	FP4001-12,13
7	MIC 5V	FP4001-11
8	MIC R	FP4001-9,10
9	EXT MIC Ⓛ	FP4001-8
10	D GND	FR4001-3,4,5,6,7
11	D GND	FR4001-3,4,5,6,7
12	D GND	FR4001-3,4,5,6,7
13	D 5V	FR4001-2
14	TALLY	FR4001-1

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852
MIC UNIT SCHEMATIC DIAGRAM

11.13. GYRO SCHEMATIC DIAGRAM


(GYRO C.B.A.)
:VIDEO MAIN SIGNAL PATH
:AUDIO MAIN SIGNAL PATH
L480 G1C100K00019
C481 4V47
CL401
C480 4V22
R455 470K
C455 470P
R454 470K
R453 4700
R452 270K
R456 0
R457 47K
C453 470P
R469 10K
C458 10
C471 10
IC480 L2ES00000006 (GYRO SENSOR)
OUT
GND
VCC
VREF
R470 10K
C465 10
C472 10
IC481 L2ES00000005 (GYRO SENSOR)
R465 470K
C456 0.1
CL402
R464 470K
C467 470P
R467 270K
C468 470P
R466 4700
R460 0
R462 47K
C482 4V22
IC452 C0ABCA000041
DO
D-
D+
C+
C-
CO
AO
A-
A+
B+
B-
BO
L452 G1C100K00019
C470 1
IC451 TC7W66FU
VDD
C460 0.1
C451 6.3V22
L451 G1C100K00019
R459 47K
C464 2200P
C459 0.01
R458 0
IC453 C0ABAA000045
C462 2200P
R461 47K
C461 0.01
R463 0
TL2501
TL2502
TO FRAME GND
C2513 0.047
USB/MINI SYSTEM
JK2502 K2HZ108B0004
G
5P SW
5P GND
5V
USB DATA+
5P DATA
USB V BUS
5P CLK
USB DATA-
R2516 0
LB2508 VLP0357A601
R2517 0
R2515 0
VZ2502 D4ED1220A006
DIGITAL STILL PICTURE
JK2501 K2HC104E0002
R1
T
R2
S
LB2501 J0JHC0000015
LB2502 J0JHC0000015
LB2503 J0JHC0000015
LB2504 J0JHC0000015
R2501 100
R2502 100
R2511 47K
AV IN/OUT PHONE
JK4001 K2HC106B0005
LB4006 J0JHC0000015
LB4003 J0JAC0000011
LB4007 J0JAC0000011
LB4005 J0JHC0000015
VZ2501 D4ED1120A002
C2510 4.7
VZ4001 D4ED12710002
C4002 4700P
C4001 4700P
CL4807
CL4805
R4001 100
L/HP L
R/GND
PLUG IN Ⓛ
V/HP R
FL4002 J0MAB0000113
LB4001 VLP0329A121
IC2502 C0CBABC00077
VCC
GND
C2508 0.1
C2509 0.1
C2511 6.3V22
L2501 G1C4R7M00016
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

TO
MAIN CONNECTION
FP451

1	SENS SW	FP4002-1
2	Y SIG	FP4002-2
3	X SIG	FP4002-3
4	REG D5V	FP4002-4
5	REG D3V	FP4002-5
6	————	FP4002-6
7	————	FP4002-7
8	5P DI	FP4002-8
9	D GND	FP4002-9
10	D GND	FP4002-10
11	USB D(-)	FP4002-11
12	V BUS	FP4002-12
13	USB D(+)	FP4002-13
14	BT 5V	FP4002-14
15	BT 5V	FP4002-15
16	CR POWER	FP4002-16
17	D GND	FP4002-17
18	T OUT	FP4002-18
19	R IN	FP4002-19
20	CN Ⓗ	FP4002-20
21	D GND	FP4002-21
22	V/HP R	FP4002-22
23	A GND	FP4002-23
24	D GND	FP4002-24
25	R/GND	FP4002-25
26	PLUG IN Ⓛ	FP4002-26
27	L/HP L	FP4002-27

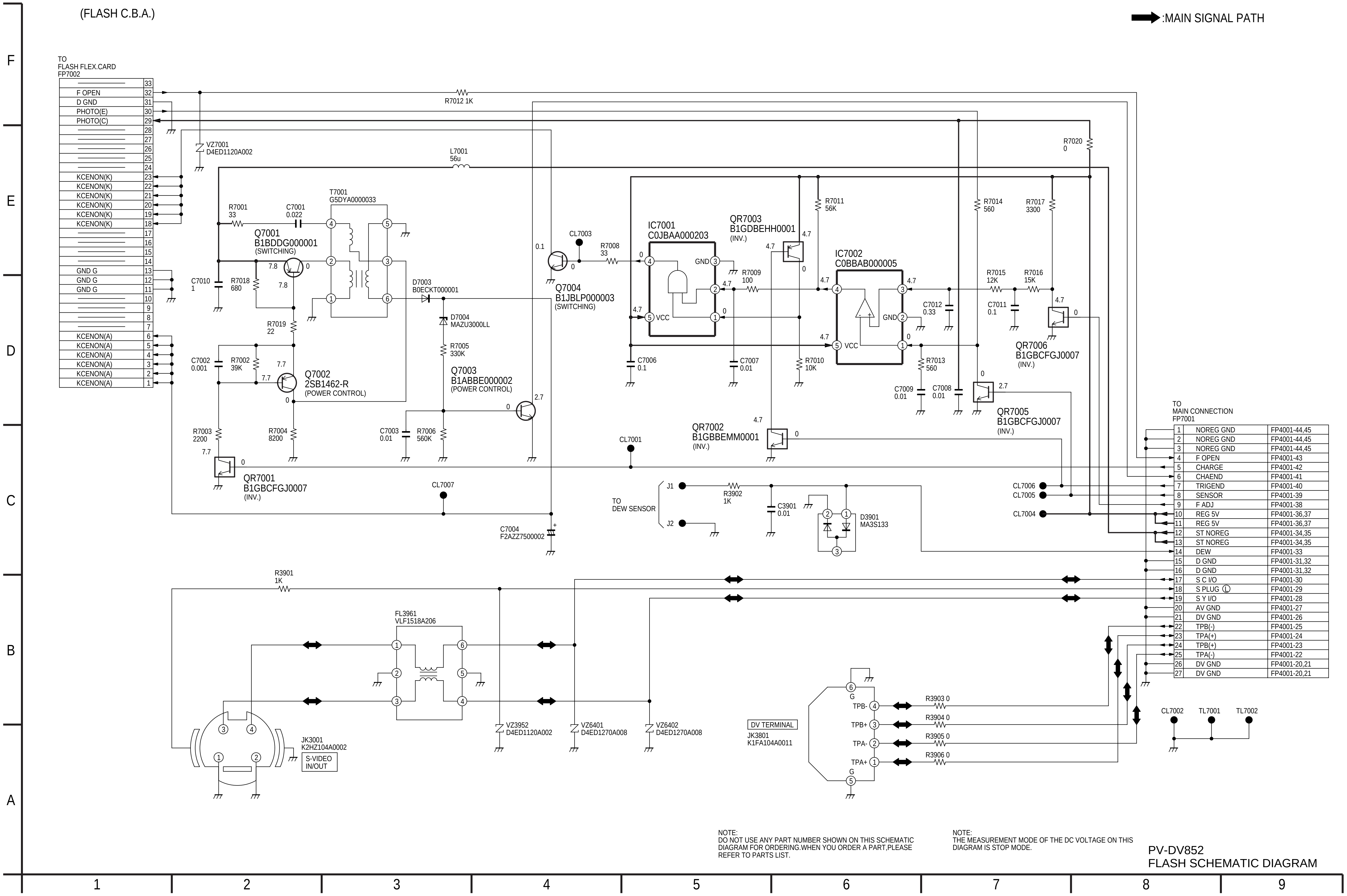
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

PV-DV852
GYRO SCHEMATIC DIAGRAM

11.14. FLASH SCHEMATIC DIAGRAM

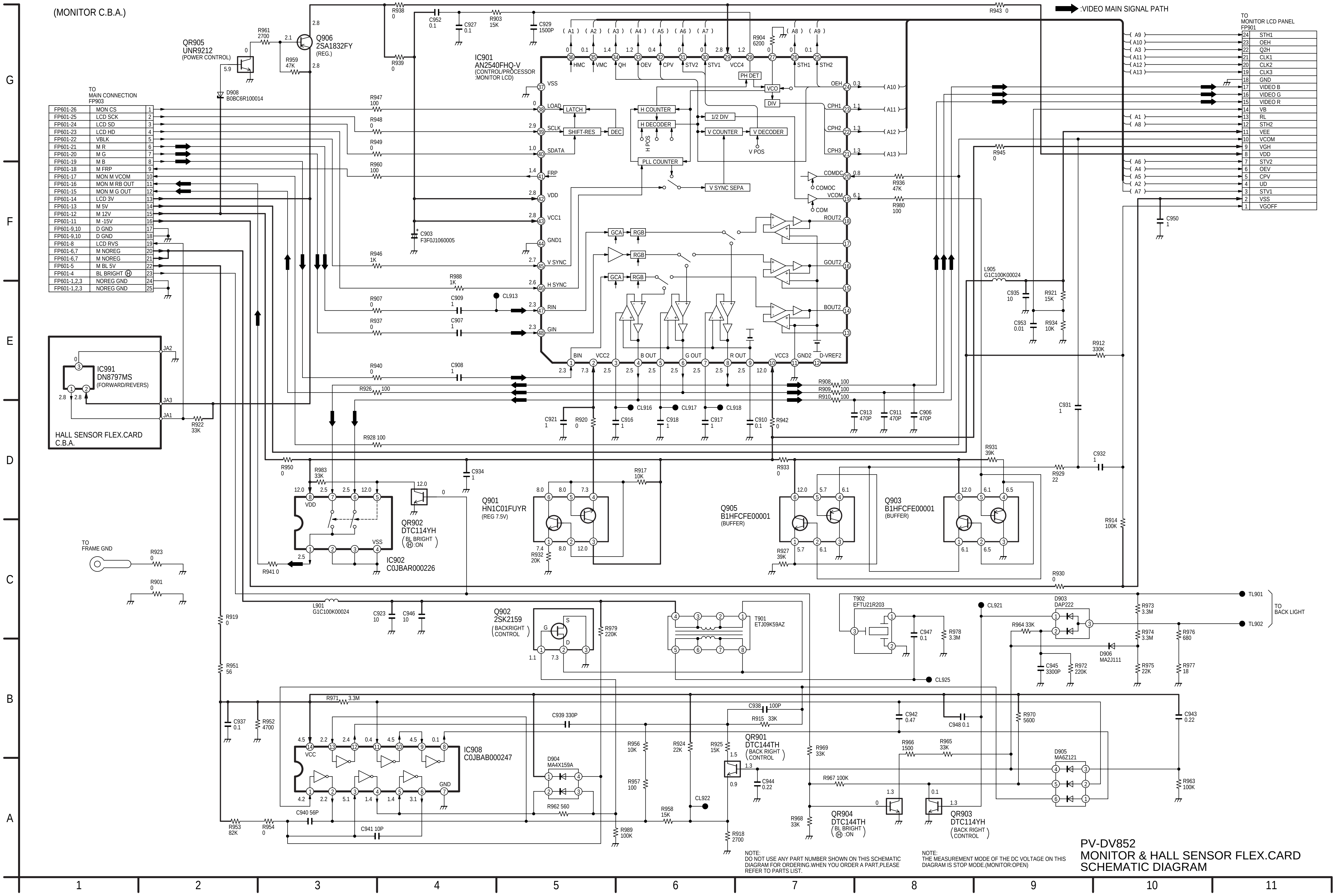

(FLASH C.B.A.)
:MAIN SIGNAL PATH
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
TO
FLASH FLEX.CARD
FP7002
33
32 F OPEN
31 D GND
30 PHOTO(E)
29 PHOTO(C)
28
27
26
25
24
23 KCENON(K)
22 KCENON(K)
21 KCENON(K)
20 KCENON(K)
19 KCENON(K)
18 KCENON(K)
17
16
15
14
13 GND G
12 GND G
11 GND G
10
9
8
7
6 KCENON(A)
5 KCENON(A)
4 KCENON(A)
3 KCENON(A)
2 KCENON(A)
1 KCENON(A)
R7012 1K
VZ7001
D4ED1120A002
L7001
56u
R7020
0
T7001
G5DYA0000033
R7001
33
C7001
0.022
Q7001
B1BDDG000001
(SWITCHING)
7.8
0
7.8
C7010
1
R7018
680
R7019
22
D7003
B0ECKT000001
D7004
MAZU3000LL
R7005
330K
C7002
0.001
R7002
39K
7.7
7.7
Q7002
2SB1462-R
(POWER CONTROL)
0
Q7003
B1ABBE000002
(POWER CONTROL)
0
2.7
R7003
2200
R7004
8200
C7003
0.01
R7006
560K
7.7
QR7001
B1GBCFGJ0007
(INV.)
0
CL7007
C7004
F2AZZ7500002
0.1
CL7003
0
R7008
33
Q7004
B1JBLP000003
(SWITCHING)
IC7001
C0JBAA000203
GND
VCC
0
4.7
0
4.7
C7006
0.1
C7007
0.01
QR7003
B1GDBEHH0001
(INV.)
4.7
4.7
0
R7009
100
R7011
56K
R7010
10K
IC7002
C0BBAB000005
VCC
GND
4.7
4.7
4.7
0
C7012
0.33
R7013
560
C7009
0.01
C7008
0.01
R7014
560
R7017
3300
R7015
12K
R7016
15K
C7011
0.1
4.7
0
QR7006
B1GBCFGJ0007
(INV.)
0
2.7
QR7005
B1GBCFGJ0007
(INV.)
4.7
QR7002
B1GBBEMM0001
(INV.)
0
CL7001
TO
DEW SENSOR
J1
J2
R3902
1K
C3901
0.01
D3901
MA3S133
CL7006
CL7005
CL7004
TO
MAIN CONNECTION
FP7001
1 NOREG GND FP4001-44,45
2 NOREG GND FP4001-44,45
3 NOREG GND FP4001-44,45
4 F OPEN FP4001-43
5 CHARGE FP4001-42
6 CHAEND FP4001-41
7 TRIGEND FP4001-40
8 SENSOR FP4001-39
9 F ADJ FP4001-38
10 REG 5V FP4001-36,37
11 REG 5V FP4001-36,37
12 ST NOREG FP4001-34,35
13 ST NOREG FP4001-34,35
14 DEW FP4001-33
15 D GND FP4001-31,32
16 D GND FP4001-31,32
17 S C I/O FP4001-30
18 S PLUG Ⓛ FP4001-29
19 S Y I/O FP4001-28
20 AV GND FP4001-27
21 DV GND FP4001-26
22 TPB(-) FP4001-25
23 TPA(+) FP4001-24
24 TPB(+) FP4001-23
25 TPA(-) FP4001-22
26 DV GND FP4001-20,21
27 DV GND FP4001-20,21
R3901
1K
FL3961
VLF1518A206
JK3001
K2HZ104A0002
S-VIDEO
IN/OUT
VZ3952
D4ED1120A002
VZ6401
D4ED1270A008
VZ6402
D4ED1270A008
DV TERMINAL
JK3801
K1FA104A0011
G
TPB-
TPB+
TPA-
TPA+
G
R3903 0
R3904 0
R3905 0
R3906 0
CL7002
TL7001
TL7002

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

PV-DV852
FLASH SCHEMATIC DIAGRAM

11.15. MONITOR & HALL SENSOR FLEX. SCHEMATIC DIAGRAM


(MONITOR C.B.A.)
:VIDEO MAIN SIGNAL PATH
TO MAIN CONNECTION FP903
FP601-26 MON CS 1
FP601-25 LCD SCK 2
FP601-24 LCD SD 3
FP601-23 LCD HD 4
FP601-22 VBLK 5
FP601-21 M R 6
FP601-20 M G 7
FP601-19 M B 8
FP601-18 M FRP 9
FP601-17 MON M VCOM 10
FP601-16 MON M RB OUT 11
FP601-15 MON M G OUT 12
FP601-14 LCD 3V 13
FP601-13 M 5V 14
FP601-12 M 12V 15
FP601-11 M -15V 16
FP601-9,10 D GND 17
FP601-9,10 D GND 18
FP601-8 LCD RVS 19
FP601-6,7 M NOREG 20
FP601-6,7 M NOREG 21
FP601-5 M BL 5V 22
FP601-4 BL BRIGHT Ⓗ 23
FP601-1,2,3 NOREG GND 24
FP601-1,2,3 NOREG GND 25
TO MONITOR LCD PANEL FP901
24 STH1
23 OEH
22 Q2H
21 CLK1
20 CLK2
19 CLK3
18 GND
17 VIDEO B
16 VIDEO G
15 VIDEO R
14 VB
13 RL
12 STH2
11 VEE
10 VCOM
9 VGH
8 VDD
7 STV2
6 OEV
5 CPV
4 UD
3 STV1
2 VSS
1 VGOFF
QR905 UNR9212 (POWER CONTROL)
Q906 2SA1832FY (REG.)
D908 B0BC6R100014
IC901 AN2540FHQ-V (CONTROL/PROCESSOR :MONITOR LCD)
LATCH
SHIFT-RES
DEC
H COUNTER
H DECODER
1/2 DIV
V COUNTER
V DECODER
PLL COUNTER
V SYNC SEPA
PH DET
VCO
DIV
H POS
V POS
GCA
RGB
VSS
LOAD
SCLK
SDATA
FRP
VDD
VCC1
GND1
V SYNC
H SYNC
RIN
GIN
BIN
VCC2
B OUT
G OUT
R OUT
VCC3
GND2
D-VREF2
OEH
CPH1
CPH2
CPH3
COMDC
VCOM
ROUT2
GOUT2
BOUT2
HMC
VMC
QH
OEV
CPV
STV2
STV1
VCC4
STH1
STH2
C903 F3F0J1060005
CL913
CL916
CL917
CL918
L905 G1C100K00024
IC991 DN8797MS (FORWARD/REVERS)
HALL SENSOR FLEX.CARD C.B.A.
JA1
JA2
JA3
TO FRAME GND
Q901 HN1C01FUYR (REG 7.5V)
Q905 B1HFCFE00001 (BUFFER)
Q903 B1HFCFE00001 (BUFFER)
QR902 DTC114YH (BL BRIGHT Ⓗ:ON)
IC902 C0JBAR000226
VDD
L901 G1C100K00024
Q902 2SK2159 (BACKRIGHT CONTROL)
T901 ETJ09K59AZ
T902 EFTU21R203
CL921
CL922
CL925
D903 DAP222
D906 MA2J111
TL901
TL902
TO BACK LIGHT
IC908 C0JBAB000247
VCC
GND
D904 MA4X159A
QR901 DTC144TH (BACK RIGHT CONTROL)
QR904 DTC144TH (BL BRIGHT Ⓗ:ON)
QR903 DTC114YH (BACK RIGHT CONTROL)
D905 MA6Z121
G
F
E
D
C
B
A
1
2
3
4
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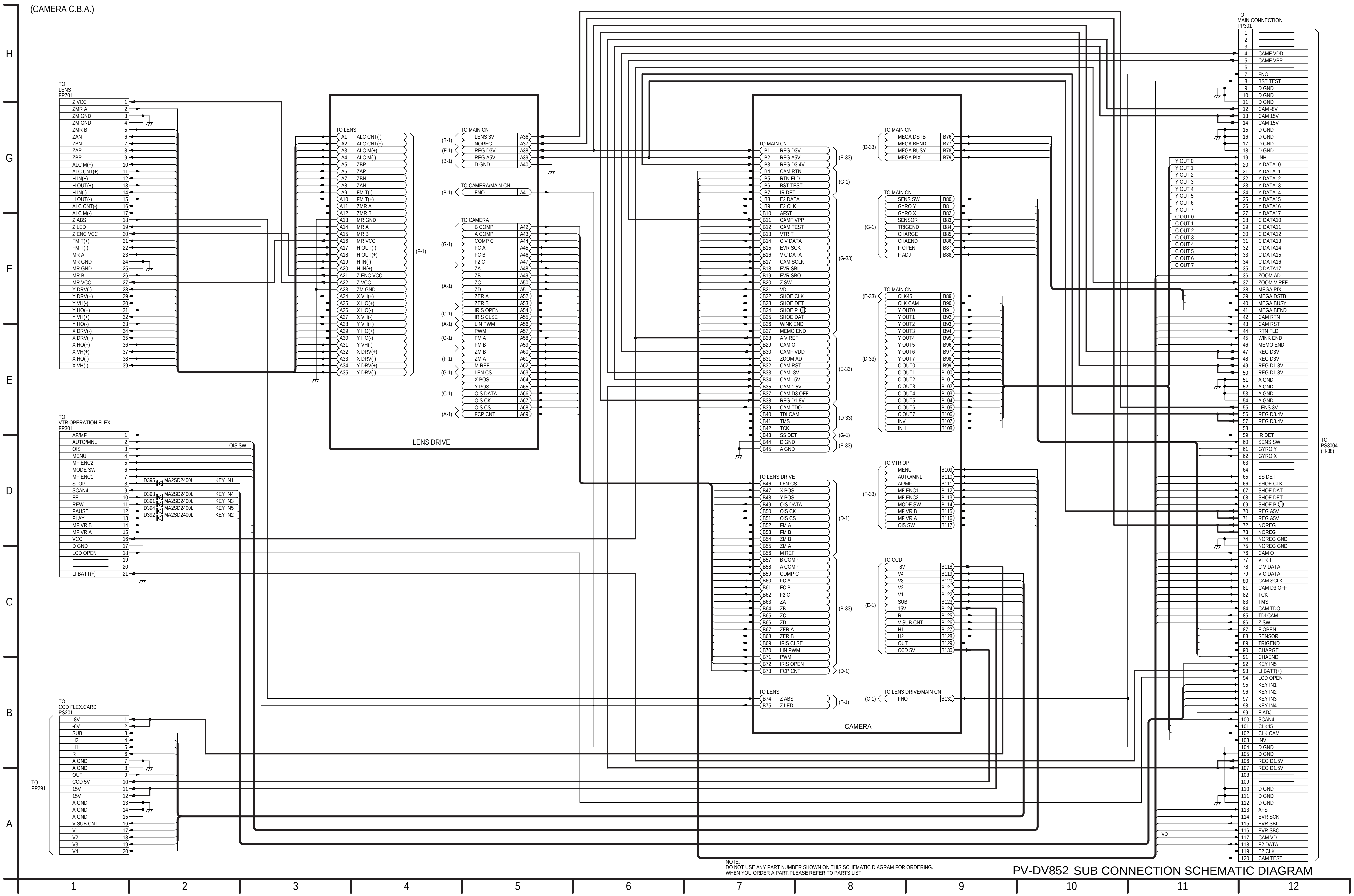
10
11

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.(MONITOR:OPEN)

PV-DV852
MONITOR & HALL SENSOR FLEX.CARD
SCHEMATIC DIAGRAM

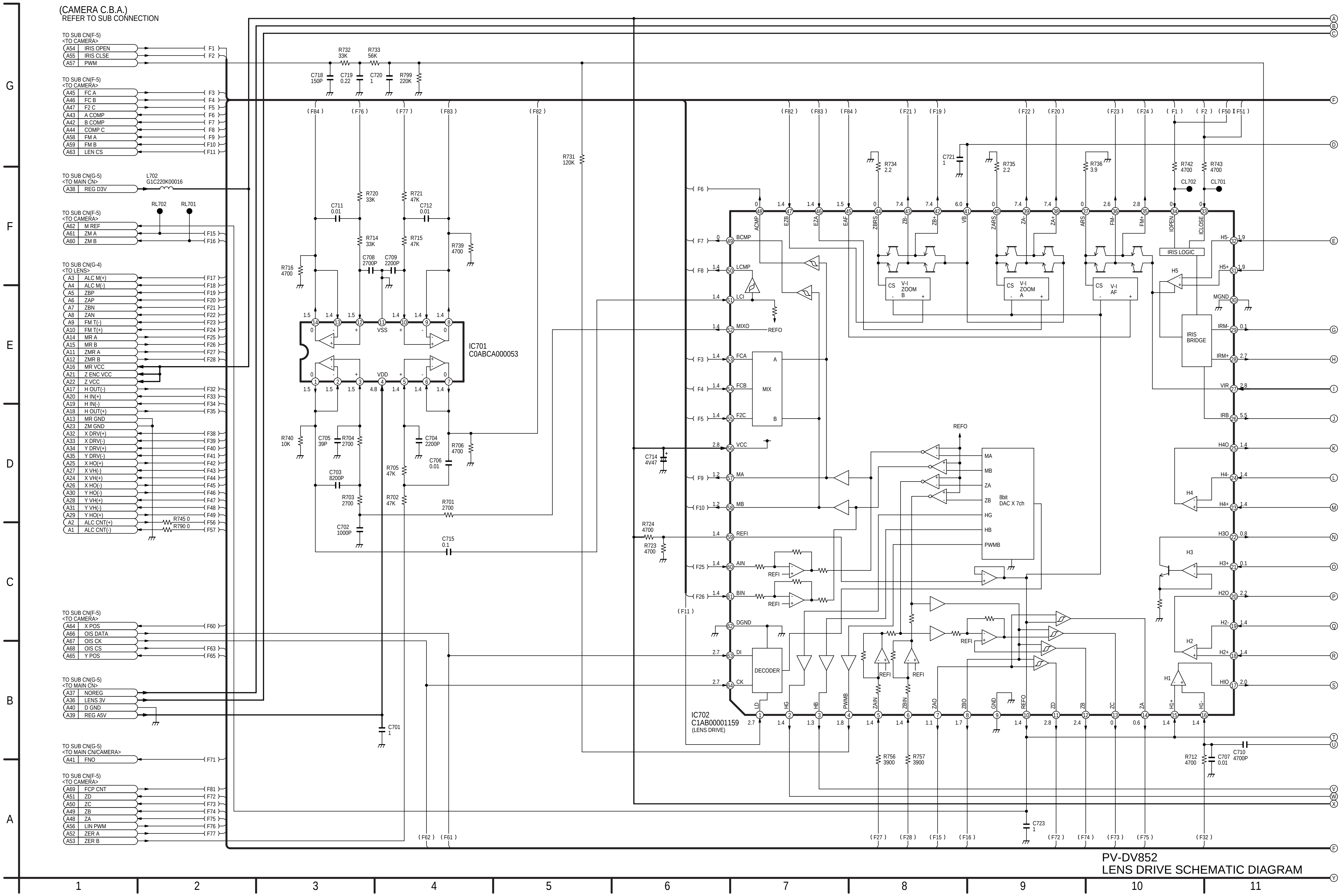
11.16. SUB CONNECTION SCHEMATIC DIAGRAM

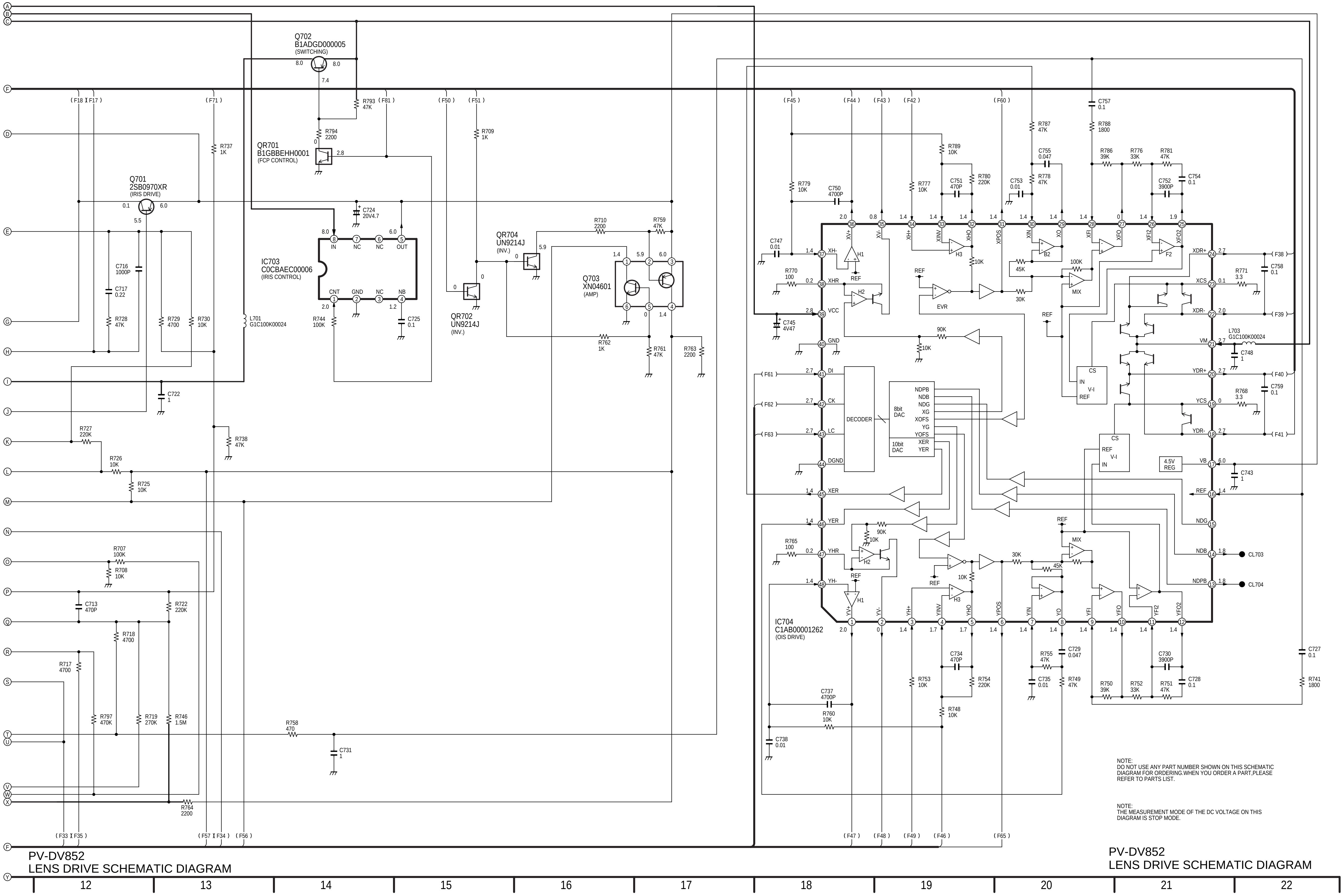

(CAMERA C.B.A.)
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
TO LENS FP701
1 Z VCC
2 ZMR A
3 ZM GND
4 ZM GND
5 ZMR B
6 ZAN
7 ZBN
8 ZAP
9 ZBP
10 ALC M(+)
11 ALC CNT(+)
12 H IN(+)
13 H OUT(+)
14 H IN(-)
15 H OUT(-)
16 ALC CNT(-)
17 ALC M(-)
18 Z ABS
19 Z LED
20 Z ENC VCC
21 FM T(+)
22 FM T(-)
23 MR A
24 MR GND
25 MR GND
26 MR B
27 MR VCC
28 Y DRV(-)
29 Y DRV(+)
30 Y VH(-)
31 Y HO(+)
32 Y VH(+)
33 Y HO(-)
34 X DRV(-)
35 X DRV(+)
36 X HO(+)
37 X VH(+)
38 X HO(-)
39 X VH(-)
TO LENS
A1 ALC CNT(-)
A2 ALC CNT(+)
A3 ALC M(+)
A4 ALC M(-)
A5 ZBP
A6 ZAP
A7 ZBN
A8 ZAN
A9 FM T(-)
A10 FM T(+)
A11 ZMR A
A12 ZMR B
A13 MR GND
A14 MR A
A15 MR B
A16 MR VCC
A17 H OUT(-)
A18 H OUT(+)
A19 H IN(-)
A20 H IN(+)
A21 Z ENC VCC
A22 Z VCC
A23 ZM GND
A24 X VH(+)
A25 X HO(+)
A26 X HO(-)
A27 X VH(-)
A28 Y VH(+)
A29 Y HO(+)
A30 Y HO(-)
A31 Y VH(-)
A32 X DRV(+)
A33 X DRV(-)
A34 Y DRV(+)
A35 Y DRV(-)
(F-1)
TO MAIN CN
(B-1) LENS 3V A36
NOREG A37
(F-1) REG D3V A38
(B-1) REG A5V A39
D GND A40
TO CAMERA/MAIN CN
(B-1) FNO A41
TO CAMERA
B COMP A42
A COMP A43
(G-1) COMP C A44
FC A A45
FC B A46
F2 C A47
ZA A48
ZB A49
(A-1) ZC A50
ZD A51
ZER A A52
ZER B A53
(G-1) IRIS OPEN A54
IRIS CLSE A55
(A-1) LIN PWM A56
PWM A57
(G-1) FM A A58
FM B A59
ZM B A60
(F-1) ZM A A61
M REF A62
(G-1) LEN CS A63
X POS A64
Y POS A65
(C-1) OIS DATA A66
OIS CK A67
OIS CS A68
(A-1) FCP CNT A69
LENS DRIVE
TO VTR OPERATION FLEX. FP301
1 AF/MF
2 AUTO/MNL
3 OIS
4 MENU
5 MF ENC2
6 MODE SW
7 MF ENC1
8 STOP
9 SCAN4
10 FF
11 REW
12 PAUSE
13 PLAY
14 MF VR B
15 MF VR A
16 VCC
17 D GND
18 LCD OPEN
19 ——
20 ——
21 LI BATT(+)
OIS SW
D395 MA2SD2400L KEY IN1
D393 MA2SD2400L KEY IN4
D391 MA2SD2400L KEY IN3
D394 MA2SD2400L KEY IN5
D392 MA2SD2400L KEY IN2
TO CCD FLEX.CARD PS201
TO PP291
1 -8V
2 -8V
3 SUB
4 H2
5 H1
6 R
7 A GND
8 A GND
9 OUT
10 CCD 5V
11 15V
12 15V
13 A GND
14 A GND
15 A GND
16 V SUB CNT
17 V1
18 V2
19 V3
20 V4
TO MAIN CN
B1 REG D3V
B2 REG A5V (E-33)
B3 REG D3.4V
B4 CAM RTN
B5 RTN FLD
B6 BST TEST (G-1)
B7 IR DET
B8 E2 DATA
B9 E2 CLK
B10 AFST
B11 CAMF VPP
B12 CAM TEST
B13 VTR T
B14 C V DATA
B15 EVR SCK
B16 V C DATA
B17 CAM SCLK (G-33)
B18 EVR SBI
B19 EVR SBO
B20 Z SW
B21 VD
B22 SHOE CLK
B23 SHOE DET
B24 SHOE P ⓗ
B25 SHOE DAT
B26 WINK END
B27 MEMO END
B28 A V REF
B29 CAM O
B30 CAMF VDD
B31 ZOOM AD
B32 CAM RST
B33 CAM -8V (E-33)
B34 CAM 15V
B35 CAM 1.5V
B37 CAM D3 OFF
B38 REG D1.8V
B39 CAM TDO
B40 TDI CAM (D-33)
B41 TMS
B42 TCK
B43 SS DET (G-1)
B44 D GND (E-33)
B45 A GND
TO LENS DRIVE
B46 LEN CS
B47 X POS
B48 Y POS
B49 OIS DATA
B50 OIS CK
B51 OIS CS (D-1)
B52 FM A
B53 FM B
B54 ZM B
B55 ZM A
B56 M REF
B57 B COMP
B58 A COMP
B59 COMP C
B60 FC A
B61 FC B
B62 F2 C
B63 ZA
B64 ZB (B-33)
B65 ZC
B66 ZD
B67 ZER A
B68 ZER B
B69 IRIS CLSE
B70 LIN PWM
B71 PWM
B72 IRIS OPEN
B73 FCP CNT (D-1)
TO LENS
B74 Z ABS (F-1)
B75 Z LED
CAMERA
TO MAIN CN
(D-33) MEGA DSTB B76
MEGA BEND B77
MEGA BUSY B78
MEGA PIX B79
TO MAIN CN
SENS SW B80
GYRO Y B81
GYRO X B82
SENSOR B83
(G-1) TRIGEND B84
CHARGE B85
CHAEND B86
F OPEN B87
F ADJ B88
TO MAIN CN
(E-33) CLK45 B89
CLK CAM B90
Y OUT0 B91
Y OUT1 B92
Y OUT2 B93
Y OUT3 B94
Y OUT4 B95
Y OUT5 B96
Y OUT6 B97
(D-33) Y OUT7 B98
C OUT0 B99
C OUT1 B100
C OUT2 B101
C OUT3 B102
C OUT4 B103
C OUT5 B104
C OUT6 B105
C OUT7 B106
INV B107
INH B108
TO VTR OP
MENU B109
AUTO/MNL B110
AF/MF B111
(F-33) MF ENC1 B112
MF ENC2 B113
MODE SW B114
MF VR B B115
MF VR A B116
OIS SW B117
TO CCD
-8V B118
V4 B119
V3 B120
V2 B121
V1 B122
SUB B123
(E-1) 15V B124
R B125
V SUB CNT B126
H1 B127
H2 B128
OUT B129
CCD 5V B130
TO LENS DRIVE/MAIN CN
(C-1) FNO B131
Y OUT 0
Y OUT 1
Y OUT 2
Y OUT 3
Y OUT 4
Y OUT 5
Y OUT 6
Y OUT 7
C OUT 0
C OUT 1
C OUT 2
C OUT 3
C OUT 4
C OUT 5
C OUT 6
C OUT 7
VD
TO MAIN CONNECTION PP301
1 ——
2 ——
3 ——
4 CAMF VDD
5 CAMF VPP
6 ——
7 FNO
8 BST TEST
9 D GND
10 D GND
11 D GND
12 CAM -8V
13 CAM 15V
14 CAM 15V
15 D GND
16 D GND
17 D GND
18 D GND
19 INH
20 Y DATA10
21 Y DATA11
22 Y DATA12
23 Y DATA13
24 Y DATA14
25 Y DATA15
26 Y DATA16
27 Y DATA17
28 C DATA10
29 C DATA11
30 C DATA12
31 C DATA13
32 C DATA14
33 C DATA15
34 C DATA16
35 C DATA17
36 ZOOM AD
37 ZOOM V REF
38 MEGA PIX
39 MEGA DSTB
40 MEGA BUSY
41 MEGA BEND
42 CAM RTN
43 CAM RST
44 RTN FLD
45 WINK END
46 MEMO END
47 REG D3V
48 REG D3V
49 REG D1.8V
50 REG D1.8V
51 A GND
52 A GND
53 A GND
54 A GND
55 LENS 3V
56 REG D3.4V
57 REG D3.4V
58 ——
59 IR DET
60 SENS SW
61 GYRO Y
62 GYRO X
63 ——
64 ——
65 SS DET
66 SHOE CLK
67 SHOE DAT
68 SHOE DET
69 SHOE P ⓗ
70 REG A5V
71 REG A5V
72 NOREG
73 NOREG
74 NOREG GND
75 NOREG GND
76 CAM O
77 VTR T
78 C V DATA
79 V C DATA
80 CAM SCLK
81 CAM D3 OFF
82 TCK
83 TMS
84 CAM TDO
85 TDI CAM
86 Z SW
87 F OPEN
88 SENSOR
89 TRIGEND
90 CHARGE
91 CHAEND
92 KEY IN5
93 LI BATT(+)
94 LCD OPEN
95 KEY IN1
96 KEY IN2
97 KEY IN3
98 KEY IN4
99 F ADJ
100 SCAN4
101 CLK45
102 CLK CAM
103 INV
104 D GND
105 D GND
106 REG D1.5V
107 REG D1.5V
108 ——
109 ——
110 D GND
111 D GND
112 D GND
113 AFST
114 EVR SCK
115 EVR SBI
116 EVR SBO
117 CAM VD
118 E2 DATA
119 E2 CLK
120 CAM TEST
TO PS3004 (H-38)

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.
WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

PV-DV852 SUB CONNECTION SCHEMATIC DIAGRAM

11.17. LENS DRIVE SCHEMATIC DIAGRAM


(CAMERA C.B.A.)
REFER TO SUB CONNECTION
TO SUB CN(F-5) <TO CAMERA>
A54 IRIS OPEN
A55 IRIS CLSE
A57 PWM
A45 FC A
A46 FC B
A47 F2 C
A43 A COMP
A42 B COMP
A44 COMP C
A58 FM A
A59 FM B
A63 LEN CS
TO SUB CN(G-5) <TO MAIN CN>
A38 REG D3V
L702 G1C220K00016
RL702
RL701
A62 M REF
A61 ZM A
A60 ZM B
TO SUB CN(G-4) <TO LENS>
A3 ALC M(+)
A4 ALC M(-)
A5 ZBP
A6 ZAP
A7 ZBN
A8 ZAN
A9 FM T(-)
A10 FM T(+)
A14 MR A
A15 MR B
A11 ZMR A
A12 ZMR B
A16 MR VCC
A21 Z ENC VCC
A22 Z VCC
A17 H OUT(-)
A20 H IN(+)
A19 H IN(-)
A18 H OUT(+)
A13 MR GND
A23 ZM GND
A32 X DRV(+)
A33 X DRV(-)
A34 Y DRV(+)
A35 Y DRV(-)
A25 X HO(+)
A27 X VH(-)
A24 X VH(+)
A26 X HO(-)
A30 Y HO(-)
A28 Y VH(+)
A31 Y VH(-)
A29 Y HO(+)
A2 ALC CNT(+)
A1 ALC CNT(-)
R745 0
R790 0
A64 X POS
A66 OIS DATA
A67 OIS CK
A68 OIS CS
A65 Y POS
TO SUB CN(G-5) <TO MAIN CN>
A37 NOREG
A36 LENS 3V
A40 D GND
A39 REG A5V
TO SUB CN(G-5) <TO MAIN CN/CAMERA>
A41 FNO
A69 FCP CNT
A51 ZD
A50 ZC
A49 ZB
A48 ZA
A56 LIN PWM
A52 ZER A
A53 ZER B
R732 33K
R733 56K
C718 150P
C719 0.22
C720 1
R799 220K
R731 120K
R720 33K
R721 47K
C711 0.01
C712 0.01
R714 33K
R715 47K
C708 2700P
C709 2200P
R739 4700
R716 4700
IC701 C0ABCA000053
VSS
VDD
R740 10K
C705 39P
R704 2700
C704 2200P
R706 4700
C706 0.01
R705 47K
C703 8200P
R703 2700
R702 47K
R701 2700
C702 1000P
C715 0.1
C701 1
C714 4V47
R724 4700
R723 4700
R734 2.2
C721 1
R735 2.2
R736 3.9
R742 4700
R743 4700
CL702
CL701
IC702 C1AB00001159 (LENS DRIVE)
ACMP EZB EZA EAF ZBRS ZB- ZB+ VB ZARS ZA- ZA+ ARS FM- FM+ IOPEN ICLOSE
BCMP LCMP LCI MIXO FCA FCB F2C VCC MA MB REFI AIN BIN DGND DI CK
LD HG HB PWMB ZAIN ZBIN ZAO ZBO GND REFO ZD ZB ZC ZA H1+ H1-
H5- H5+ MGND IRM- IRM+ VIR IRB H4O H4- H4+ H3O H3+ H2O H2- H2+ HIO
MIX
DECODER
8bit DAC X 7ch
IRIS LOGIC
IRIS BRIDGE
CS V-I ZOOM B
CS V-I ZOOM A
CS V-I AF
REFO
R756 3900
R757 3900
R712 4700
C707 0.01
C710 4700P
C723 1
PV-DV852
LENS DRIVE SCHEMATIC DIAGRAM
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11


Q702
B1ADGD000005
(SWITCHING)
QR701
B1GBBEHH0001
(FCP CONTROL)
Q701
2SB0970XR
(IRIS DRIVE)
IC703
C0CBAEC00006
(IRIS CONTROL)
QR704
UN9214J
(INV.)
QR702
UN9214J
(INV.)
Q703
XN04601
(AMP)
L701
G1C100K00024
IC704
C1AB00001262
(OIS DRIVE)
L703
G1C100K00024
DECODER
8bit DAC
10bit DAC
4.5V REG
CS
V-I
MIX
EVR
CL703
CL704
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
12
13
14
15
16
17
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22

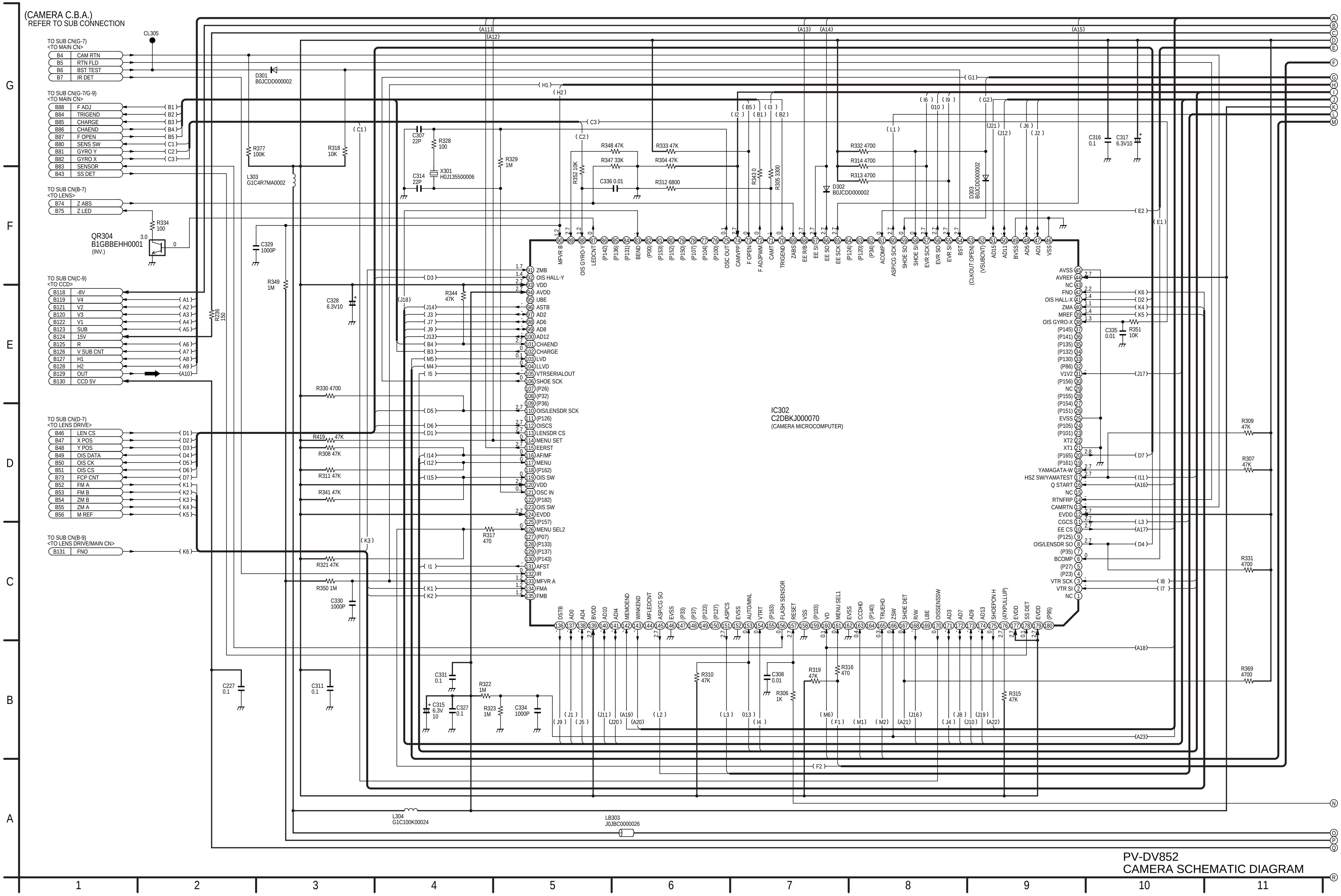
PV-DV852
LENS DRIVE SCHEMATIC DIAGRAM

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

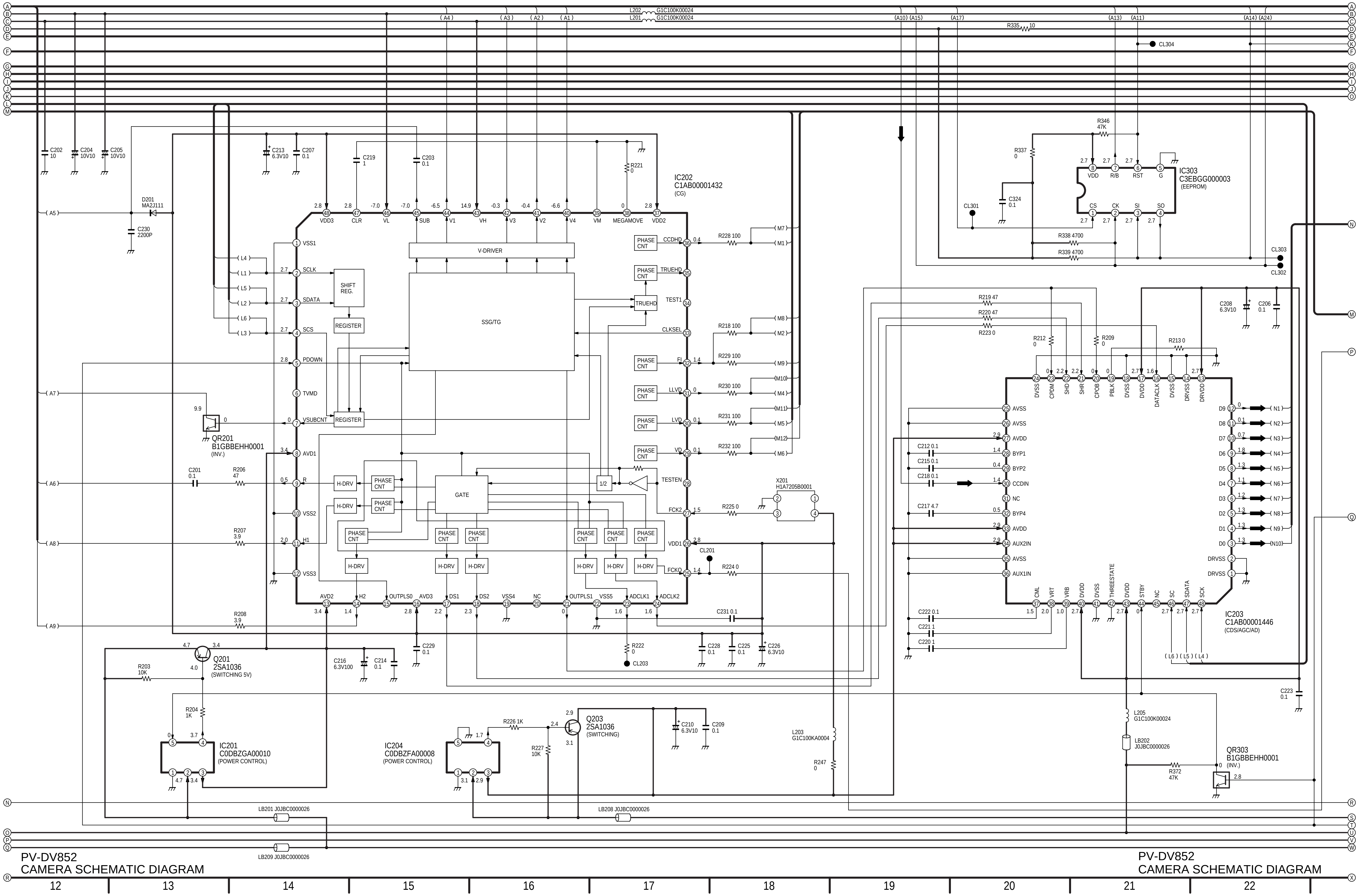
PV-DV852
LENS DRIVE SCHEMATIC DIAGRAM

11.18. CAMERA SCHEMATIC DIAGRAM



(CAMERA C.B.A.)
REFER TO SUB CONNECTION
TO SUB CN(G-7) <TO MAIN CN>
B4 CAM RTN
B5 RTN FLD
B6 BST TEST
B7 IR DET
CL305
D301 B0JCDD000002
TO SUB CN(G-7/G-9) <TO MAIN CN>
B88 F ADJ
B84 TRIGEND
B85 CHARGE
B86 CHAEND
B87 F OPEN
B80 SENS SW
B81 GYRO Y
B82 GYRO X
B83 SENSOR
B43 SS DET
TO SUB CN(B-7) <TO LENS>
B74 Z ABS
B75 Z LED
R334 100
QR304 B1GBBEHH0001 (INV.)
TO SUB CN(C-9) <TO CCD>
B118 -8V
B119 V4
B121 V2
B120 V3
B122 V1
B123 SUB
B124 15V
B125 R
B126 V SUB CNT
B127 H1
B128 H2
B129 OUT
B130 CCD 5V
R236 150
TO SUB CN(D-7) <TO LENS DRIVE>
B46 LEN CS
B47 X POS
B48 Y POS
B49 OIS DATA
B50 OIS CK
B51 OIS CS
B73 FCP CNT
B52 FM A
B53 FM B
B54 ZM B
B55 ZM A
B56 M REF
TO SUB CN(B-9) <TO LENS DRIVE/MAIN CN>
B131 FNO
R377 100K
R318 10K
L303 G1C4R7MA0002
C307 22P
R328 100
X301 H0J135500006
C314 22P
R329 1M
C329 1000P
R349 1M
C328 6.3V10
R344 47K
R330 4700
R419 47K
R308 47K
R311 47K
R341 47K
R317 470
R321 47K
R350 1M
C330 1000P
R348 47K
R347 33K
C336 0.01
R352 10K
R333 47K
R304 47K
R312 6800
R343 0
R305 3300
D302 B0JCDD000002
R332 4700
R314 4700
R313 4700
D303 B0JCDD000002
C316 0.1
C317 6.3V10
C335 0.01
R351 10K
R309 47K
R307 47K
R331 4700
R369 4700
IC302 C2DBKJ000070 (CAMERA MICROCOMPUTER)
C227 0.1
C311 0.1
C331 0.1
C315 6.3V 10
C327 0.1
R322 1M
R323 1M
C334 1000P
R310 47K
C308 0.01
R306 1K
R319 47K
R316 470
R315 47K
L304 G1C100K00024
LB303 J0JBC0000026
A B C D E F G H I J K L M N O P Q R
1 2 3 4 5 6 7 8 9 10 11
G F E D C B A

PV-DV852
CAMERA SCHEMATIC DIAGRAM


IC202
C1AB00001432
(CG)
V-DRIVER
SSG/TG
SHIFT REG.
REGISTER
GATE
TRUEHD
PHASE CNT
H-DRV
1/2
TESTEN
VDD3
CLR
VL
SUB
V1
VH
V3
V2
V4
VM
MEGAMOVE
VDD2
VSS1
SCLK
SDATA
SCS
PDOWN
TVMD
VSUBCNT
AVD1
R
VSS2
H1
VSS3
AVD2
H2
OUTPLS0
AVD3
DS1
DS2
VSS4
NC
OUTPLS1
VSS5
ADCLK1
ADCLK2
CCDHD
TRUEHD
TEST1
CLKSEL
FI
LLVD
LVD
VD
FCK2
VDD1
FCKO
IC203
C1AB00001446
(CDS/AGC/AD)
AVSS
AVDD
BYP1
BYP2
CCDIN
NC
BYP4
AUX2IN
AUX1IN
DRVSS
DRVDD
DVSS
DVDD
CPDM
SHD
SHR
CPOB
PBLK
DATACLK
CML
VRT
VRB
THREESTATE
STBY
SC
SDATA
SCK
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
IC303
C3EBGG000003
(EEPROM)
VDD
R/B
RST
G
CS
CK
SI
SO
IC201
C0DBZGA00010
(POWER CONTROL)
IC204
C0DBZFA00008
(POWER CONTROL)
Q201
2SA1036
(SWITCHING 5V)
Q203
2SA1036
(SWITCHING)
QR201
B1GBBEHH0001
(INV.)
QR303
B1GBBEHH0001
(INV.)
X201
H1A7205B0001
D201
MA2J111
L202 G1C100K00024
L201 G1C100K00024
L203 G1C100KA0004
L205 G1C100K00024
LB201 J0JBC0000026
LB202 J0JBC0000026
LB208 J0JBC0000026
LB209 J0JBC0000026
C202 10
C204 10V10
C205 10V10
C213 6.3V10
C207 0.1
C219 1
C203 0.1
C230 2200P
C201 0.1
C216 6.3V100
C214 0.1
C229 0.1
C228 0.1
C225 0.1
C226 6.3V10
C231 0.1
C210 6.3V10
C209 0.1
C324 0.1
C208 6.3V10
C206 0.1
C212 0.1
C215 0.1
C218 0.1
C217 4.7
C222 0.1
C221 1
C220 1
C223 0.1
R221 0
R228 100
R218 100
R229 100
R230 100
R231 100
R232 100
R225 0
R224 0
R222 0
R206 47
R207 3.9
R208 3.9
R203 10K
R204 1K
R226 1K
R227 10K
R247 0
R335 10
R346 47K
R337 0
R338 4700
R339 4700
R219 47
R220 47
R223 0
R212 0
R209 0
R213 0
R372 47K
CL201
CL203
CL301
CL302
CL303
CL304
A
B
C
D
E
F
G
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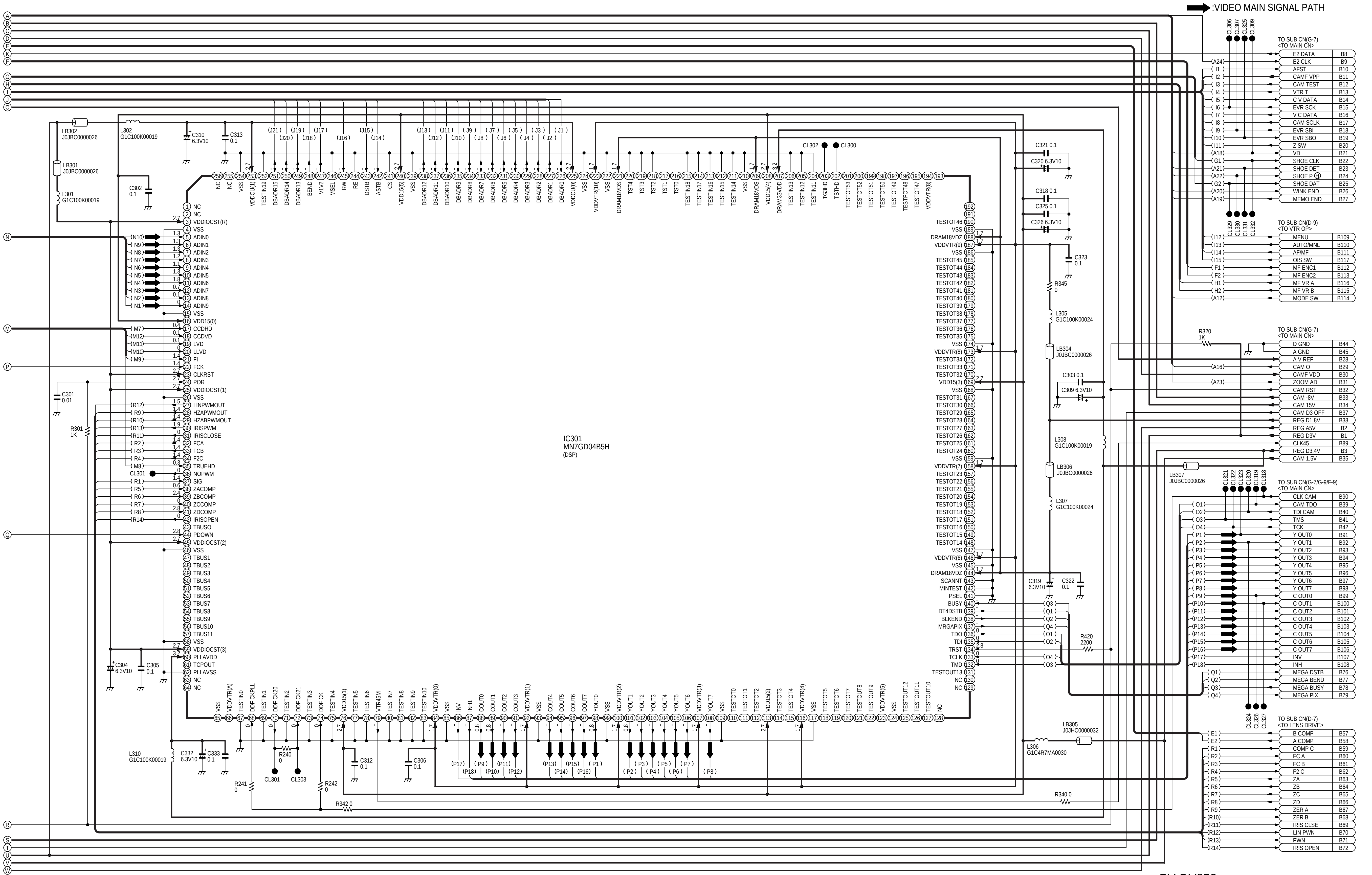
PV-DV852
CAMERA SCHEMATIC DIAGRAM

PV-DV852
CAMERA SCHEMATIC DIAGRAM


:VIDEO MAIN SIGNAL PATH
IC301
MN7GD04B5H
(DSP)
TO SUB CN(G-7)
<TO MAIN CN>
E2 DATA B8
E2 CLK B9
AFST B10
CAMF VPP B11
CAM TEST B12
VTR T B13
C V DATA B14
EVR SCK B15
V C DATA B16
CAM SCLK B17
EVR SBI B18
EVR SBO B19
Z SW B20
VD B21
SHOE CLK B22
SHOE DET B23
SHOE P B24
SHOE DAT B25
WINK END B26
MEMO END B27
TO SUB CN(D-9)
<TO VTR OP>
MENU B109
AUTO/MNL B110
AF/MF B111
OIS SW B117
MF ENC1 B112
MF ENC2 B113
MF VR A B116
MF VR B B115
MODE SW B114
TO SUB CN(G-7)
<TO MAIN CN>
D GND B44
A GND B45
A V REF B28
CAM O B29
CAMF VDD B30
ZOOM AD B31
CAM RST B32
CAM -8V B33
CAM 15V B34
CAM D3 OFF B37
REG D1.8V B38
REG A5V B2
REG D3V B1
CLK45 B89
REG D3.4V B3
CAM 1.5V B35
TO SUB CN(G-7/G-9/F-9)
<TO MAIN CN>
CLK CAM B90
CAM TDO B39
TDI CAM B40
TMS B41
TCK B42
Y OUT0 B91
Y OUT1 B92
Y OUT2 B93
Y OUT3 B94
Y OUT4 B95
Y OUT5 B96
Y OUT6 B97
Y OUT7 B98
C OUT0 B99
C OUT1 B100
C OUT2 B101
C OUT3 B102
C OUT4 B103
C OUT5 B104
C OUT6 B105
C OUT7 B106
INV B107
INH B108
MEGA DSTB B76
MEGA BEND B77
MEGA BUSY B78
MEGA PIX B79
TO SUB CN(D-7)
<TO LENS DRIVE>
B COMP B57
A COMP B58
COMP C B59
FC A B60
FC B B61
F2 C B62
ZA B63
ZB B64
ZC B65
ZD B66
ZER A B67
ZER B B68
IRIS CLSE B69
LIN PWN B70
PWN B71
IRIS OPEN B72
LB302 J0JBC0000026
L302 G1C100K00019
C310 6.3V10
C313 0.1
LB301 J0JBC0000026
L301 G1C100K00019
C302 0.1
C301 0.01
R301 1K
CL301
C304 6.3V10
C305 0.1
L310 G1C100K00019
C332 6.3V10
C333 0.1
R240 0
CL301
CL303
R241 0
R242 0
R342 0
C312 0.1
C306 0.1
CL302
CL300
C321 0.1
C320 6.3V10
C318 0.1
C325 0.1
C326 6.3V10
C323 0.1
R345 0
L305 G1C100K00024
LB304 J0JBC0000026
C303 0.1
C309 6.3V10
L308 G1C100K00019
LB306 J0JBC0000026
L307 G1C100K00024
C319 6.3V10
C322 0.1
R420 2200
LB305 J0JHC0000032
L306 G1C4R7MA0030
R340 0
R320 1K
LB307 J0JBC0000026
CL306 CL307 CL325 CL309
CL329 CL330 CL331 CL332
CL321 CL322 CL323 CL320 CL319 CL318
CL324 CL326 CL327
A B C D E K F G H I J O N M P Q R S T U V W X
23 24 25 26 27 28 29 30 31 32 33

PV-DV852
CAMERA SCHEMATIC DIAGRAM

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

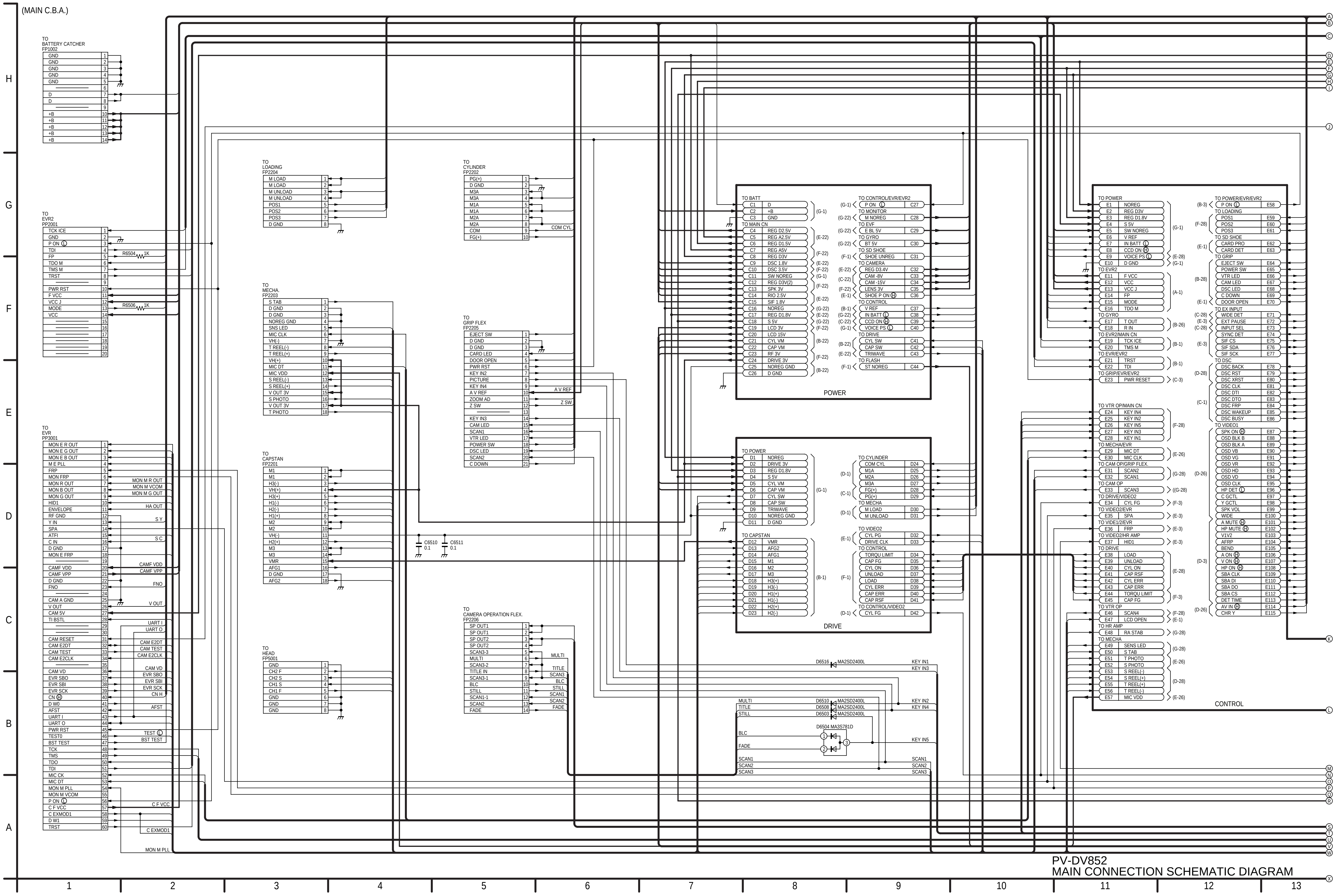
PV-DV852
CAMERA SCHEMATIC DIAGRAM

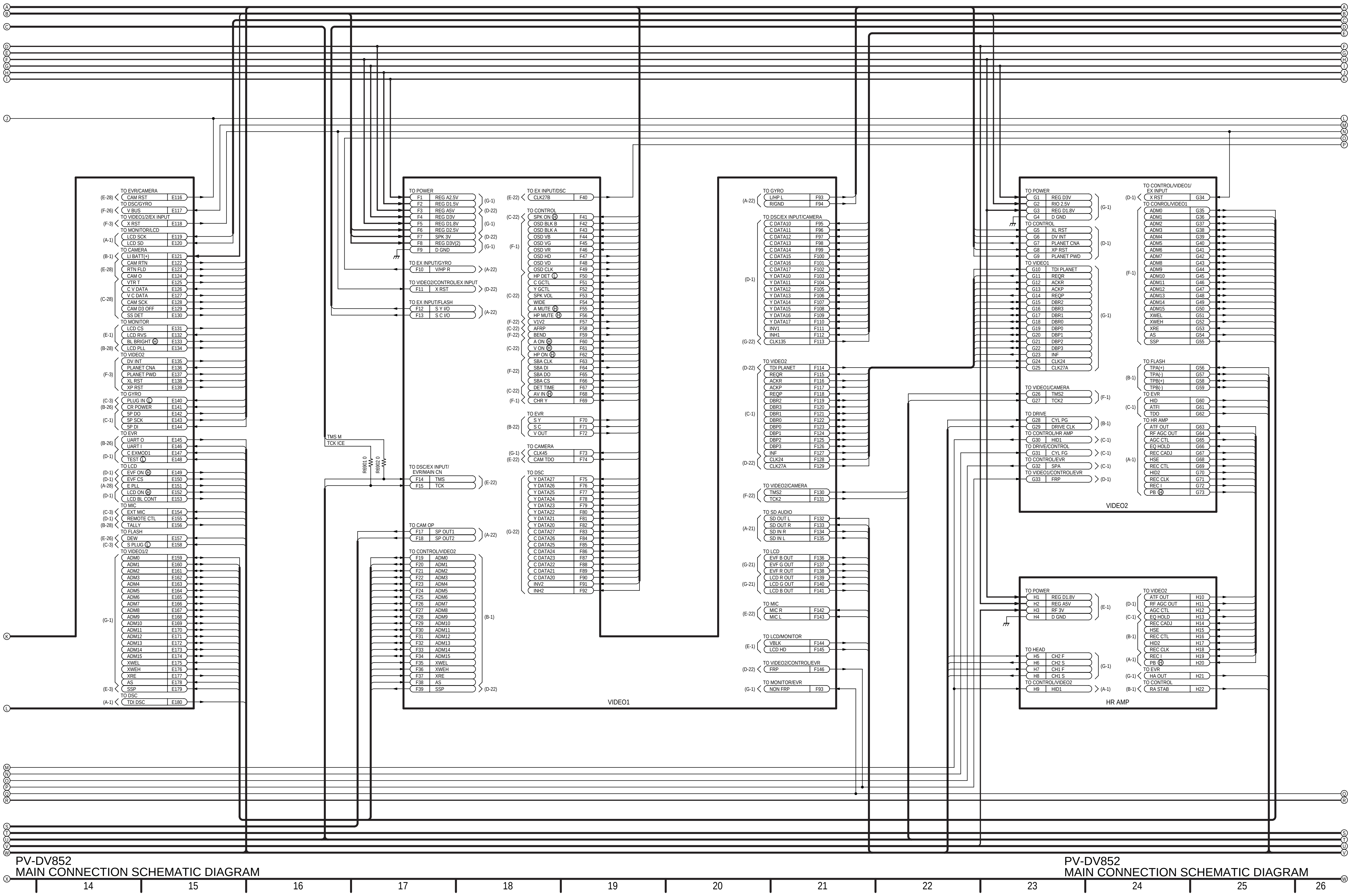
11.18.1. CAMERA I/O TABLE

IC302 : CAMERA MICROCOMPUTER

Pin No.	Signal Name	I/O	Explanation
1	NC	–	–
2	VTR SI	I	VTR Serial Data
3	VTR SCK	I	VTR Serial Clock
4	P23	–	–
5	P27	–	–
6	B COMP	I	Linear Adjust (BCOMP Capture)
7	P35	–	–
8	OIS/LENSDR SO	O	OIS/LENS-DAC Serial Data
9	P125	–	–
10	EE CS	O	EEPROM Chip Select
11	CGCS	O	Character Generator CS
12	EVDD	I	Voltage
13	CAM RTN	I	Camera Clock Reference Signal
14	RTN FLD	I	Field Detect
15	NC	–	–
16	Q START	I	Quick Start
17	HSZ SW/YAMATEST	I	High Speed Zoom SW
18	YAMAGATA-W	I	–
19	P161	–	–
20	P165	O	FCP Control
21	XT1	–	–
22	XT2	–	–
23	P101	–	–
24	P105	–	–
25	EVSS	–	GND
26	P151	–	–
27	P154	–	–
28	P155	–	–
29	NC	–	–
30	P156	–	–
31	V1V2	I	Act Detect End
32	P86	–	–
33	P130	–	–
34	P132	–	–
35	P135	–	–
36	P141	–	–
37	P145	–	–
38	OIS GYRO-X	I	OIS Gyro-X
39	MREF	I	M Reference (Analog IN)
40	ZMA	I	Zoom MA (Analog IN)
41	OIS HALL-X	I	OIS Hall-X
42	FNO	I	F Value
43	NC	–	–
44	AVREF	I	Voltage
45	AVSS	–	GND
46	VSS	–	GND
47	AD1	I/O	EXT. BUS Data
48	AD5	I/O	EXT. BUS Data
49	BVSS	–	GND
50	AD11	I/O	EXT. BUS Address/Data
51	AD15	I/O	EXT. BUS Address/Data
52	VSUBCNT	–	–
53	CLKOUT:OPEN	–	–
54	BST	I	Boundary Scan Test SW
55	EVR SI	I	EVR Serial Data
56	EVR SO	O	EVR Serial Data
57	EVR SCK	I	EVR Serial Clock
58	SHOE SI	I	Shoe Serial Data
59	SHOE SO	O	Shoe Serial Data
60	ASP/CG SCK	O	ASP/CG Serial Clock
61	A COMP	I	Linear Adjust (ACOMP Capture)
62	P34	–	–
63	P120	–	–
64	P124	–	–
65	EE SCK	O	EEPROM Serial Clock
66	EE SO	O	EEPROM Serial Data
67	EE SI	I	EEPROM Serial Data
68	EE R/B	I	EEPROM Ready/Busy
69	ZABS	I	Zoom Encoder
70	TRIGEND	O	Trig End
71	CAM T	I	Camera Test
72	F ADJ PWM	O	Flash Adjustment
73	F OPEN	I	Flash Open
74	CAM VPP	I	Voltage
75	OSC OUT	O	Clock (13.5MHz)
76	P100	–	–
77	P104	–	–
78	P107	–	–
79	P150	–	–
80	P152	–	–
81	P153	–	–
82	P00	–	–
83	BEND	I	Data Block End Request
84	P131	–	–
85	P136	–	–
86	P142	–	–
87	LED CNT	O	LED Control (Zoom Encoder)
88	OIS GYRO-Y	I	OIS Gyro-Y
89	NC	–	–
90	MFVRB	I	MF Ring VR2 (Analog IN)
91	ZMB	I	Zoom MB (Analog IN)
92	OIS HALL-Y	I	OIS Hall-Y
93	VDD	I	Voltage
94	AVDD	I	Voltage
95	UBE	–	–
96	ASTB	O	EXT. BUS Address Strobe
97	AD2	I/O	EXT. BUS Data
98	AD6	I/O	EXT. BUS Data
99	AD8	I/O	EXT. BUS Data
100	AD12	I/O	EXT. BUS Address
101	CHAEND	I	Flash Charge End
102	CHARGE	O	Flash Charge
103	LVD	I	LVD
104	LLVD	I	LLVD
105	VTR SERIAL OUT	O	VTR Serial Data
106	SHOE SCK	O	Shoe Serial Clock
107	P26	–	–
108	P32	–	–
109	P36	–	–
110	OIS/LENSDR SCK	O	OIS/LENS-DAC Serial Clock
111	P126	–	–
112	OIS CS	O	OIS Chip Select
113	LENSDR CS	O	Lens Drive Chip Select
114	MENU SET	I	Menu Set SW
115	EE RST	O	EEPROM Reset
116	AF/MF	I	AF/MF Select SW
117	MENU	I	MENU SW
118	P162	–	–
119	OIS SW	I	OIS SW
120	VDD	I	Voltage
121	OSC IN	I	Clock (13.5MHz)
122	P182	–	–
123	OIS SW	–	–
124	EVDD	I	Voltage
125	P157	–	–
126	MENU SEL2	I	Menu Select2
127	P07	–	–
128	P133	–	–
129	P137	–	–
130	P143	–	–
131	AFST	O	Process Timing Pulse
132	IR	I	IR Signal IN
133	MFVRA	I	MF Ring VR1 (Analog IN)
134	FMA	I	MA (Analog IN)
135	FMB	I	MB (Analog IN)
136	DSTB	O	EXT. BUS Data Strobe
137	AD0	I/O	EXT. BUS Address/Data
138	AD4	I/O	EXT. BUS Address/Data
139	BVDD	I	Voltage
140	AD10	I/O	EXT. BUS Address/Data
141	AD14	I/O	EXT. BUS Address/Data
.142	MEMO END	I	MEMO END
143	WINK END	O	WINK END
144	MF LED CNT	–	–
145	ASP/CG SO	O	ASP/CG Serial Data
146	EVSS	–	GND
147	P33	–	–
148	P37	–	–
149	P123	–	–
150	P127	–	–
151	ASP CS	O	ASP Chip Select
152	EVSS	–	GND
153	AUTO/MNL	I	Auto/Manual SW
154	VTR T	I	SYNC Serial Communication Enable
155	P163	–	–
156	FLASH SENSOR	O	Flash Sensor
157	RESET	I	Power ON Reset
158	VSS	–	GND
159	P103	–	–
160	VD	I	VD
161	MENU SEL1	I	Menu Select
162	EVSS	–	GND
163	CCD HD	I	CCD HD
164	P140	–	–
165	TRUE HD	I	True HD
166	ZSW	I	Zoom SW
167	SHOE DET	I	Shoe Detect
168	R/W	O	EXT. BUS Read/Write
169	LBE	–	–
170	OIS SENS SW	O	OIS Sensor SW
171	AD3	I/O	EXT. BUS Address/Data
172	AD7	I/O	EXT. BUS Address/Data
173	AD9	I/O	EXT. BUS Address/Data
174	AD13	I/O	EXT. BUS Address/Data
175	SHOE P ONⒽ	O	Shoe Power ON/OFF
176	47K PULL UP	–	–
177	EVDD	I	Voltage
178	SS DET	I	Start/Stop Detect
179	EVDD	I	Voltage
180	P95	–	–

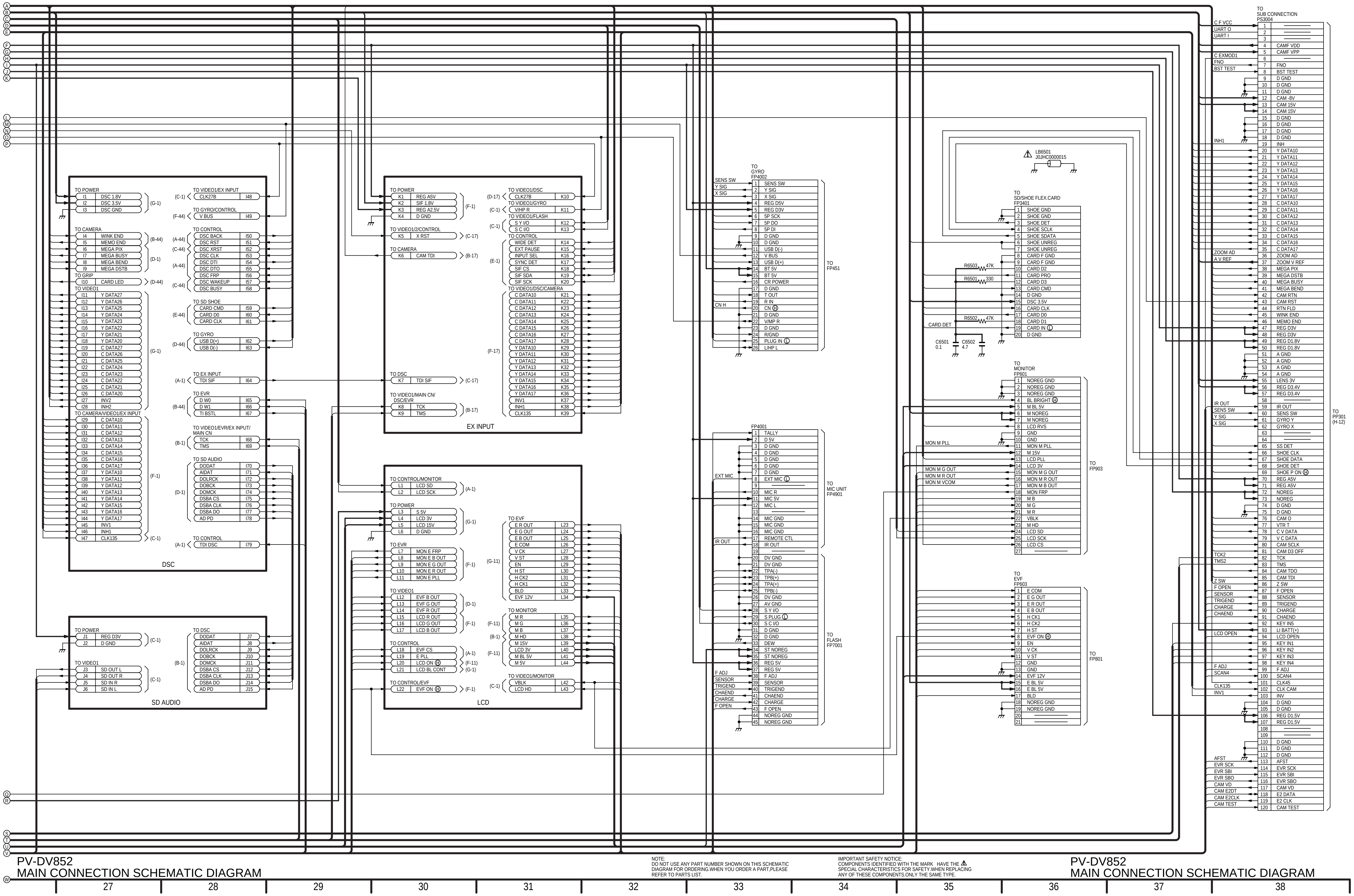
11.19. MAIN CONNECTION SCHEMATIC DIAGRAM


(MAIN C.B.A.)
TO BATTERY CATCHER FP1002
TO EVR2 FP2001
TO EVR FP3001
TO LOADING FP2204
TO MECHA. FP2203
TO CAPSTAN FP2201
TO HEAD FP5001
TO CYLINDER FP2202
TO GRIP FLEX FP2205
TO CAMERA OPERATION FLEX. FP2206
R6504 1K
R6506 1K
C6510 0.1
C6511 0.1
COM CYL
A V REF
Z SW
D6516 MA2SD2400L
D6510 MA2SD2400L
D6508 MA2SD2400L
D6503 MA2SD2400L
D6504 MA3S781D
KEY IN1
KEY IN3
KEY IN2
KEY IN4
KEY IN5
MULTI
TITLE
STILL
BLC
FADE
SCAN1
SCAN2
SCAN3
POWER
DRIVE
CONTROL
TO BATT
TO MAIN CN
TO CONTROL/EVR/EVR2
TO MONITOR
TO EVF
TO GYRO
TO SD SHOE
TO CAMERA
TO CONTROL
TO DRIVE
TO FLASH
TO POWER
TO CYLINDER
TO MECHA
TO VIDEO2
TO CAPSTAN
TO CONTROL/VIDEO2
TO POWER/EVR/EVR2
TO LOADING
TO GRIP
TO EX INPUT
TO DSC
TO VIDEO1
TO EVR2
TO EVR2/MAIN CN
TO EVR/EVR2
TO GRIP/EVR/EVR2
TO VTR OP/MAIN CN
TO MECHA/EVR
TO CAM OP/GRIP FLEX.
TO CAM OP
TO DRIVE/VIDEO2
TO VIDEO2/EVR
TO VIDEO1/2/EVR
TO VIDEO2/HR AMP
TO VTR OP
TO HR AMP
A B C D E F G H I J K L M N O P Q R S T U V W X
1 2 3 4 5 6 7 8 9 10 11 12 13
PV-DV852
MAIN CONNECTION SCHEMATIC DIAGRAM


TO EVR/CAMERA
(E-28) CAM RST E116
TO DSC/GYRO
(F-26) V BUS E117
TO VIDEO1/2/EX INPUT
(F-3) X RST E118
TO MONITOR/LCD
(A-1) LCD SCK E119
LCD SD E120
TO CAMERA
(B-1) LI BATT(+) E121
CAM RTN E122
(E-28) RTN FLD E123
CAM O E124
VTR T E125
C V DATA E126
(C-28) V C DATA E127
CAM SCK E128
CAM D3 OFF E129
SS DET E130
TO MONITOR
LCD CS E131
(E-1) LCD RVS E132
BL BRIGHT E133
(B-28) LCD PLL E134
TO VIDEO2
DV INT E135
PLANET CNA E136
(F-3) PLANET PWD E137
XL RST E138
XP RST E139
TO GYRO
(C-3) PLUG IN E140
(B-26) CR POWER E141
5P DO E142
(C-1) 5P SCK E143
5P DI E144
TO EVR
UART O E145
(B-26) UART I E146
(D-1) C EXMOD1 E147
TEST E148
TO LCD
(D-1) EVF ON E149
(D-1) EVF CS E150
(A-28) E PLL E151
(D-1) LCD ON E152
LCD BL CONT E153
TO MIC
(C-3) EXT MIC E154
(D-1) REMOTE CTL E155
(B-28) TALLY E156
TO FLASH
(E-26) DEW E157
(C-3) S PLUG E158
TO VIDEO1/2
ADM0 E159
ADM1 E160
ADM2 E161
ADM3 E162
ADM4 E163
ADM5 E164
ADM6 E165
ADM7 E166
ADM8 E167
(G-1) ADM9 E168
ADM10 E169
ADM11 E170
ADM12 E171
ADM13 E172
ADM14 E173
ADM15 E174
XWEL E175
XWEH E176
XRE E177
AS E178
(E-3) SSP E179
TO DSC
(A-1) TDI DSC E180
TMS M
TCK ICE
R8901 0
R8902 0
TO POWER
F1 REG A2.5V
F2 REG D1.5V (G-1)
F3 REG A5V (D-22)
F4 REG D3V
F5 REG D1.8V (G-1)
F6 REG D2.5V
F7 SPK 3V (D-22)
F8 REG D3V(2) (G-1)
F9 D GND
TO EX INPUT/GYRO
F10 V/HP R (A-22)
TO VIDEO2/CONTROL/EX INPUT
F11 X RST (D-22)
TO EX INPUT/FLASH
F12 S Y I/O (A-22)
F13 S C I/O
TO DSC/EX INPUT/ EVR/MAIN CN
F14 TMS (E-22)
F15 TCK
TO CAM OP
F17 SP OUT1 (A-22)
F18 SP OUT2
TO CONTROL/VIDEO2
F19 ADM0
F20 ADM1
F21 ADM2
F22 ADM3
F23 ADM4
F24 ADM5
F25 ADM6
F26 ADM7
F27 ADM8
F28 ADM9 (B-1)
F29 ADM10
F30 ADM11
F31 ADM12
F32 ADM13
F33 ADM14
F34 ADM15
F35 XWEL
F36 XWEH
F37 XRE
F38 AS
F39 SSP (D-22)
TO EX INPUT/DSC
(E-22) CLK27B F40
TO CONTROL
(C-22) SPK ON F41
OSD BLK B F42
OSD BLK A F43
OSD VB F44
(F-1) OSD VG F45
OSD VR F46
OSD HD F47
OSD VD F48
OSD CLK F49
HP DET F50
C GCTL F51
Y GCTL F52
(C-22) SPK VOL F53
WIDE F54
A MUTE F55
HP MUTE F56
(F-22) V1V2 F57
(C-22) AFRP F58
(F-22) BEND F59
A ON F60
(C-22) V ON F61
HP ON F62
SBA CLK F63
(F-22) SBA DI F64
SBA DO F65
SBA CS F66
(C-22) DET TIME F67
AV IN F68
(F-1) CHR Y F69
TO EVR
S Y F70
(B-22) S C F71
V OUT F72
TO CAMERA
(G-1) CLK45 F73
(E-22) CAM TDO F74
TO DSC
Y DATA27 F75
Y DATA26 F76
Y DATA25 F77
Y DATA24 F78
Y DATA23 F79
Y DATA22 F80
Y DATA21 F81
Y DATA20 F82
(G-22) C DATA27 F83
C DATA26 F84
C DATA25 F85
C DATA24 F86
C DATA23 F87
C DATA22 F88
C DATA21 F89
C DATA20 F90
INV2 F91
INH2 F92
VIDEO1
TO GYRO
(A-22) L/HP L F93
R/GND F94
TO DSC/EX INPUT/CAMERA
C DATA10 F95
C DATA11 F96
C DATA12 F97
C DATA13 F98
C DATA14 F99
C DATA15 F100
C DATA16 F101
C DATA17 F102
(D-1) Y DATA10 F103
Y DATA11 F104
Y DATA12 F105
Y DATA13 F106
Y DATA14 F107
Y DATA15 F108
Y DATA16 F109
Y DATA17 F110
INV1 F111
INH1 F112
(G-22) CLK135 F113
TO VIDEO2
(D-22) TDI PLANET F114
REQR F115
ACKR F116
ACKP F117
REQP F118
DBR2 F119
DBR3 F120
(C-1) DBR1 F121
DBR0 F122
DBP0 F123
DBP1 F124
DBP2 F125
DBP3 F126
INF F127
(D-22) CLK24 F128
CLK27A F129
TO VIDEO2/CAMERA
(F-22) TMS2 F130
TCK2 F131
TO SD AUDIO
SD OUT L F132
(A-21) SD OUT R F133
SD IN R F134
SD IN L F135
TO LCD
EVF B OUT F136
(G-21) EVF G OUT F137
EVF R OUT F138
LCD R OUT F139
(G-21) LCD G OUT F140
LCD B OUT F141
TO MIC
(E-22) MIC R F142
MIC L F143
TO LCD/MONITOR
(E-1) VBLK F144
LCD HD F145
TO VIDEO2/CONTROL/EVR
(D-22) FRP F146
TO MONITOR/EVR
(G-1) NON FRP F93
TO POWER
G1 REG D3V
G2 RIO 2.5V (G-1)
G3 REG D1.8V
G4 D GND
TO CONTROL
G5 XL RST
G6 DV INT
G7 PLANET CNA (D-1)
G8 XP RST
G9 PLANET PWD
TO VIDEO1
G10 TDI PLANET
G11 REQR
G12 ACKR
G13 ACKP
G14 REQP
G15 DBR2
G16 DBR3
G17 DBR1 (G-1)
G18 DBR0
G19 DBP0
G20 DBP1
G21 DBP2
G22 DBP3
G23 INF
G24 CLK24
G25 CLK27A
TO VIDEO1/CAMERA
G26 TMS2 (F-1)
G27 TCK2
TO DRIVE
G28 CYL PG (B-1)
G29 DRIVE CLK
TO CONTROL/HR AMP
G30 HID1 (C-1)
TO DRIVE/CONTROL
G31 CYL FG (C-1)
TO CONTROL/EVR
G32 SPA (C-1)
TO VIDEO1/CONTROL/EVR
G33 FRP (D-1)
TO CONTROL/VIDEO1/ EX INPUT
(D-1) X RST G34
TO CONROL/VIDEO1
ADM0 G35
ADM1 G36
ADM2 G37
ADM3 G38
ADM4 G39
ADM5 G40
ADM6 G41
ADM7 G42
ADM8 G43
ADM9 G44
(F-1) ADM10 G45
ADM11 G46
ADM12 G47
ADM13 G48
ADM14 G49
ADM15 G50
XWEL G51
XWEH G52
XRE G53
AS G54
SSP G55
TO FLASH
TPA(+) G56
(B-1) TPA(-) G57
TPB(+) G58
TPB(-) G59
TO EVR
HID G60
(C-1) ATFI G61
TDO G62
TO HR AMP
ATF OUT G63
RF AGC OUT G64
AGC CTL G65
EQ HOLD G66
REC CADJ G67
(A-1) HSE G68
REC CTL G69
HID2 G70
REC CLK G71
REC I G72
PB G73
VIDEO2
TO POWER
H1 REG D1.8V
H2 REG A5V (E-1)
H3 RF 3V
H4 D GND
TO HEAD
H5 CH2 F
H6 CH2 S (G-1)
H7 CH1 F
H8 CH1 S
TO CONTROL/VIDEO2
H9 HID1 (A-1)
TO VIDEO2
(D-1) ATF OUT H10
RF AGC OUT H11
(C-1) AGC CTL H12
EQ HOLD H13
REC CADJ H14
HSE H15
(B-1) REC CTL H16
HID2 H17
REC CLK H18
(A-1) REC I H19
PB H20
TO EVR
(G-1) HA OUT H21
TO CONTROL
(B-1) RA STAB H22
HR AMP
A B C D E F G H I J K L M N O P Q R S T U V W X
14 15 16 17 18 19 20 21 22 23 24 25 26

PV-DV852
MAIN CONNECTION SCHEMATIC DIAGRAM

PV-DV852
MAIN CONNECTION SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
DSC
TO POWER
I1 DSC 1.8V
I2 DSC 3.5V
I3 DSC GND
(G-1)
TO CAMERA
I4 WINK END
I5 MEMO END
(B-44)
I6 MEGA PIX
I7 MEGA BUSY
I8 MEGA BEND
I9 MEGA DSTB
(D-1)
TO GRIP
I10 CARD LED
(D-44)
TO VIDEO1
I11 Y DATA27
I12 Y DATA26
I13 Y DATA25
I14 Y DATA24
I15 Y DATA23
I16 Y DATA22
I17 Y DATA21
I18 Y DATA20
I19 C DATA27
I20 C DATA26
I21 C DATA25
I22 C DATA24
I23 C DATA23
I24 C DATA22
I25 C DATA21
I26 C DATA20
I27 INV2
I28 INH2
(G-1)
TO CAMERA/VIDEO1/EX INPUT
I29 C DATA10
I30 C DATA11
I31 C DATA12
I32 C DATA13
I33 C DATA14
I34 C DATA15
I35 C DATA16
I36 C DATA17
I37 Y DATA10
I38 Y DATA11
I39 Y DATA12
I40 Y DATA13
I41 Y DATA14
I42 Y DATA15
I43 Y DATA16
I44 Y DATA17
I45 INV1
I46 INH1
I47 CLK135
(F-1)
(C-1)
TO VIDEO1/EX INPUT
(C-1) CLK27B I48
TO GYRO/CONTROL
(F-44) V BUS I49
TO CONTROL
(A-44) DSC BACK I50
(C-44) DSC RST I51
DSC XRST I52
(A-44) DSC CLK I53
DSC DTI I54
DSC DTO I55
(C-44) DSC FRP I56
DSC WAKEUP I57
DSC BUSY I58
TO SD SHOE
(E-44) CARD CMD I59
CARD D0 I60
CARD CLK I61
TO GYRO
(D-44) USB D(+) I62
USB D(-) I63
TO EX INPUT
(A-1) TDI SIF I64
TO EVR
(B-44) D W0 I65
D W1 I66
TI BSTL I67
TO VIDEO1/EVR/EX INPUT/ MAIN CN
(B-1) TCK I68
TMS I69
TO SD AUDIO
(D-1) DODAT I70
AIDAT I71
DOLRCK I72
DOBCK I73
DOMCK I74
DSBA CS I75
DSBA CLK I76
DSBA DO I77
AD PD I78
TO CONTROL
(A-1) TDI DSC I79
SD AUDIO
TO POWER
J1 REG D3V
J2 D GND
(C-1)
TO VIDEO1
J3 SD OUT L
J4 SD OUT R
J5 SD IN R
J6 SD IN L
(C-1)
TO DSC
(B-1) DODAT J7
AIDAT J8
DOLRCK J9
DOBCK J10
DOMCK J11
DSBA CS J12
DSBA CLK J13
DSBA DO J14
AD PD J15
EX INPUT
TO POWER
K1 REG A5V
K2 SIF 1.8V
K3 REG A2.5V
K4 D GND
(F-1)
TO VIDEO1/2/CONTROL
K5 X RST (C-17)
TO CAMERA
K6 CAM TDI (B-17)
TO DSC
K7 TDI SIF (C-17)
TO VIDEO1/MAIN CN/ DSC/EVR
K8 TCK
K9 TMS
(B-17)
TO VIDEO1/DSC
(D-17) CLK27B K10
TO VIDEO1/GYRO
(C-1) V/HP R K11
TO VIDEO1/FLASH
(C-1) S Y I/O K12
S C I/O K13
TO CONTROL
(E-1) WIDE DET K14
EXT PAUSE K15
INPUT SEL K16
SYNC DET K17
SIF CS K18
SIF SDA K19
SIF SCK K20
TO VIDEO1/DSC/CAMERA
(F-17) C DATA10 K21
C DATA11 K22
C DATA12 K23
C DATA13 K24
C DATA14 K25
C DATA15 K26
C DATA16 K27
C DATA17 K28
Y DATA10 K29
Y DATA11 K30
Y DATA12 K31
Y DATA13 K32
Y DATA14 K33
Y DATA15 K34
Y DATA16 K35
Y DATA17 K36
INV1 K37
INH1 K38
CLK135 K39
LCD
TO CONTROL/MONITOR
L1 LCD SD
L2 LCD SCK
(A-1)
TO POWER
L3 S 5V
L4 LCD 3V
L5 LCD 15V
L6 D GND
(G-1)
TO EVR
L7 MON E FRP
L8 MON E B OUT
L9 MON E G OUT
L10 MON E R OUT
L11 MON E PLL
(F-1)
TO VIDEO1
L12 EVF B OUT
L13 EVF G OUT
L14 EVF R OUT
(D-1)
L15 LCD R OUT
L16 LCD G OUT
L17 LCD B OUT
(F-1)
TO CONTROL
L18 EVF CS
L19 E PLL
(A-1)
L20 LCD ON H (F-1)
L21 LCD BL CONT (G-1)
TO CONTROL/EVF
L22 EVF ON H (F-1)
TO EVF
(G-11) E R OUT L23
E G OUT L24
E B OUT L25
E COM L26
V CK L27
V ST L28
EN L29
H ST L30
H CK2 L31
H CK1 L32
BLD L33
EVF 12V L34
TO MONITOR
(F-11) M R L35
M G L36
M B L37
(B-1) M HD L38
(F-11) M 15V L39
LCD 3V L40
M BL 5V L41
M 5V L44
TO VIDEO1/MONITOR
(C-1) VBLK L42
LCD HD L43
TO GYRO FP4002
SENS SW
Y SIG
X SIG
1 SENS SW
2 Y SIG
3 X SIG
4 REG D5V
5 REG D3V
6 5P SCK
7 5P DO
8 5P DI
9 D GND
10 D GND
11 USB D(-)
12 V BUS
13 USB D(+)
14 BT 5V
15 BT 5V
16 CR POWER
17 D GND
18 T OUT
19 R IN
20 CN H
21 D GND
22 V/MP R
23 D GND
24 R/GND
25 PLUG IN L
26 L/HP L
CN H
TO FP451
FP4001
1 TALLY
2 D 5V
3 D GND
4 D GND
5 D GND
6 D GND
7 D GND
8 EXT MIC L
9
10 MIC R
11 MIC 5V
12 MIC L
13
14 MIC GND
15 MIC GND
16 MIC GND
17 REMOTE CTL
18 IR OUT
19
EXT MIC
IR OUT
TO MIC UNIT FP4901
20 DV GND
21 DV GND
22 TPA(-)
23 TPB(+)
24 TPA(+)
25 TPB(-)
26 DV GND
27 AV GND
28 S Y I/O
29 S PLUG L
30 S C I/O
31 D GND
32 D GND
33 DEW
34 ST NOREG
35 ST NOREG
36 REG 5V
37 REG 5V
38 F ADJ
39 SENSOR
40 TRIGEND
41 CHAEND
42 CHARGE
43 F OPEN
44 NOREG GND
45 NOREG GND
F ADJ
SENSOR
TRIGEND
CHAEND
CHARGE
F OPEN
TO FLASH FP7001
⚠ LB6501 J0JHC0000015
TO SD/SHOE FLEX.CARD FP3401
1 SHOE GND
2 SHOE GND
3 SHOE DET
4 SHOE SCLK
5 SHOE SDATA
6 SHOE UNREG
7 SHOE UNREG
8 CARD F GND
9 CARD F GND
10 CARD D2
11 CARD PRO
12 CARD D3
13 CARD CMD
14 D GND
15 DSC 3.5V
16 CARD CLK
17 CARD D0
18 CARD D1
19 CARD IN L
20 D GND
R6503 47K
R6501 330
R6502 47K
CARD DET
C6501 0.1
C6502 4.7
TO MONITOR FP601
1 NOREG GND
2 NOREG GND
3 NOREG GND
4 BL BRIGHT H
5 M BL 5V
6 M NOREG
7 M NOREG
8 LCD RVS
9 GND
10 GND
11 MON M PLL
12 M 15V
13 LCD PLL
14 LCD 3V
15 MON M G OUT
16 MON M R OUT
17 MON M B OUT
18 MON FRP
19 M B
20 M G
21 M R
22 VBLK
23 M HD
24 LCD SD
25 LCD SCK
26 LCD CS
27
MON M PLL
MON M G OUT
MON M R OUT
MON M VCOM
TO FP903
TO EVF FP603
1 E COM
2 E G OUT
3 E R OUT
4 E B OUT
5 H CK1
6 H CK2
7 H ST
8 EVF ON H
9 EN
10 V CK
11 V ST
12 GND
13 GND
14 EVF 12V
15 E BL 5V
16 E BL 5V
17 BLD
18 NOREG GND
19 NOREG GND
20
21
TO FP801
TO SUB CONNECTION PS3004
C F VCC
UART O
UART I
C EXMOD1
FNO
BST TEST
INH1
ZOOM AD
A V REF
IR OUT
SENS SW
Y SIG
X SIG
TCK2
TMS2
Z SW
F OPEN
SENSOR
TRIGEND
CHARGE
CHAEND
LCD OPEN
F ADJ
SCAN4
CLK135
INV1
AFST
EVR SCK
EVR SBI
EVR SBO
CAM VD
CAM E2DT
CAM E2CLK
CAM TEST
1
2
3
4 CAMF VDD
5 CAMF VPP
6
7 FNO
8 BST TEST
9 D GND
10 D GND
11 D GND
12 CAM -8V
13 CAM 15V
14 CAM 15V
15 D GND
16 D GND
17 D GND
18 D GND
19 INH
20 Y DATA10
21 Y DATA11
22 Y DATA12
23 Y DATA13
24 Y DATA14
25 Y DATA15
26 Y DATA16
27 Y DATA17
28 C DATA10
29 C DATA11
30 C DATA12
31 C DATA13
32 C DATA14
33 C DATA15
34 C DATA16
35 C DATA17
36 ZOOM AD
37 ZOOM V REF
38 MEGA PIX
39 MEGA DSTB
40 MEGA BUSY
41 MEGA BEND
42 CAM RTN
43 CAM RST
44 RTN FLD
45 WINK END
46 MEMO END
47 REG D3V
48 REG D3V
49 REG D1.8V
50 REG D1.8V
51 A GND
52 A GND
53 A GND
54 A GND
55 LENS 3V
56 REG D3.4V
57 REG D3.4V
58
59 IR OUT
60 SENS SW
61 GYRO Y
62 GYRO X
63
64
65 SS DET
66 SHOE CLK
67 SHOE DATA
68 SHOE DET
69 SHOE P ON H
70 REG A5V
71 REG A5V
72 NOREG
73 NOREG
74 D GND
75 D GND
76 CAM O
77 VTR T
78 C V DATA
79 V C DATA
80 CAM SCLK
81 CAM D3 OFF
82 TCK
83 TMS
84 CAM TDO
85 CAM TDI
86 Z SW
87 F OPEN
88 SENSOR
89 TRIGEND
90 CHARGE
91 CHAEND
92 KEY IN5
93 LI BATT(+)
94 LCD OPEN
95 KEY IN1
96 KEY IN2
97 KEY IN3
98 KEY IN4
99 F ADJ
100 SCAN4
101 CLK45
102 CLK CAM
103 INV
104 D GND
105 D GND
106 REG D1.5V
107 REG D1.5V
108
109
110 D GND
111 D GND
112 D GND
113 AFST
114 EVR SCK
115 EVR SBI
116 EVR SBO
117 CAM VD
118 E2 DATA
119 E2 CLK
120 CAM TEST
TO PP301 (H-12)
27
28
29
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36
37
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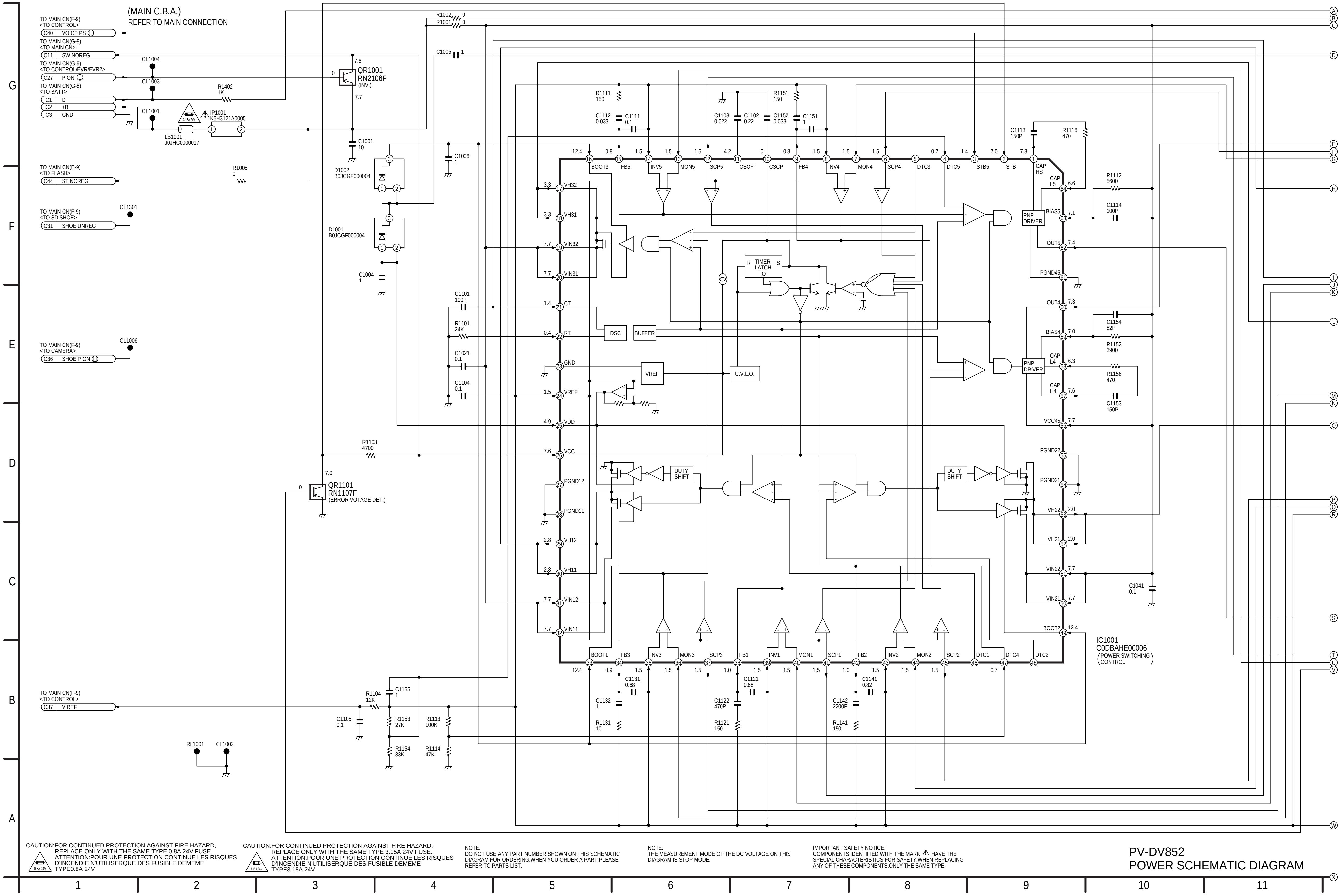
PV-DV852
MAIN CONNECTION SCHEMATIC DIAGRAM

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.WHEN REPLACING ANY OF THESE COMPONENTS,ONLY THE SAME TYPE.

PV-DV852
MAIN CONNECTION SCHEMATIC DIAGRAM

11.20. POWER SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
TO MAIN CN(F-9) <TO CONTROL> C40 VOICE PS L
TO MAIN CN(G-8) <TO MAIN CN> C11 SW NOREG
TO MAIN CN(G-9) <TO CONTROL/EVR/EVR2> C27 P ON L
TO MAIN CN(G-8) <TO BATT> C1 D C2 +B C3 GND
TO MAIN CN(E-9) <TO FLASH> C44 ST NOREG
TO MAIN CN(F-9) <TO SD SHOE> C31 SHOE UNREG
TO MAIN CN(F-9) <TO CAMERA> C36 SHOE P ON H
TO MAIN CN(F-9) <TO CONTROL> C37 V REF
CL1004
CL1003
CL1001
CL1301
CL1006
RL1001
CL1002
R1402 1K
IP1001 K5H3121A0005
LB1001 J0JHC0000017
R1005 0
R1002 0
R1001 0
C1005 1
QR1001 RN2106F (INV.)
7.6
7.7
C1001 10
D1002 B0JCGF000004
D1001 B0JCGF000004
C1006 1
C1004 1
R1103 4700
QR1101 RN1107F (ERROR VOTAGE DET.)
7.0
R1104 12K
C1155 1
C1105 0.1
R1153 27K
R1154 33K
R1113 100K
R1114 47K
C1101 100P
R1101 24K
C1021 0.1
C1104 0.1
R1111 150
C1112 0.033
C1111 0.1
C1103 0.022
C1102 0.22
R1151 150
C1152 0.033
C1151 1
C1113 150P
R1116 470
R1112 5600
C1114 100P
C1154 82P
R1152 3900
R1156 470
C1153 150P
C1041 0.1
C1131 0.68
C1132 1
R1131 10
C1121 0.68
C1122 470P
R1121 150
C1141 0.82
C1142 2200P
R1141 150
IC1001 C0DBAHE00006 (POWER SWITCHING CONTROL)
BOOT3 FB5 INV5 MON5 SCP5 CSOFT CSCP FB4 INV4 MON4 SCP4 DTC3 DTC5 STB5 STB
CAP HS
CAP L5
BIAS5
OUT5
PGND45
OUT4
BIAS4
CAP L4
CAP H4
VCC45
PGND22
PGND21
VH22
VH21
VIN22
VIN21
BOOT2
VH32 VH31 VIN32 VIN31 CT RT GND VREF VDD VCC PGND12 PGND11 VH12 VH11 VIN12 VIN11
BOOT1 FB3 INV3 MON3 SCP3 FB1 INV1 MON1 SCP1 FB2 INV2 MON2 SCP2 DTC1 DTC4 DTC2
TIMER LATCH
R S Q
DSC
BUFFER
VREF
U.V.L.O.
DUTY SHIFT
PNP DRIVER
12.4 0.8 1.5 1.5 1.5 4.2 0 0.8 1.5 1.5 1.5 0.7 1.4 7.0 7.8
3.3 3.3 7.7 7.7 1.4 0.4 1.5 4.9 7.6 2.8 2.8 7.7 7.7
6.6 7.1 7.4 7.3 7.0 6.3 7.6 7.7 2.0 2.0 7.7 7.7 12.4
12.4 0.9 1.5 1.5 1.5 1.0 1.5 1.5 1.5 1.0 1.5 1.5 0.7
A B C D E F G H I J K L M N O P Q R S T U V W X
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11

CAUTION:FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 0.8A 24V FUSE.
ATTENTION:POUR UNE PROTECTION CONTINUE LES RISQUES D'INCENDIE N'UTILISERQUE DES FUSIBLE DEMEME TYPE0.8A 24V

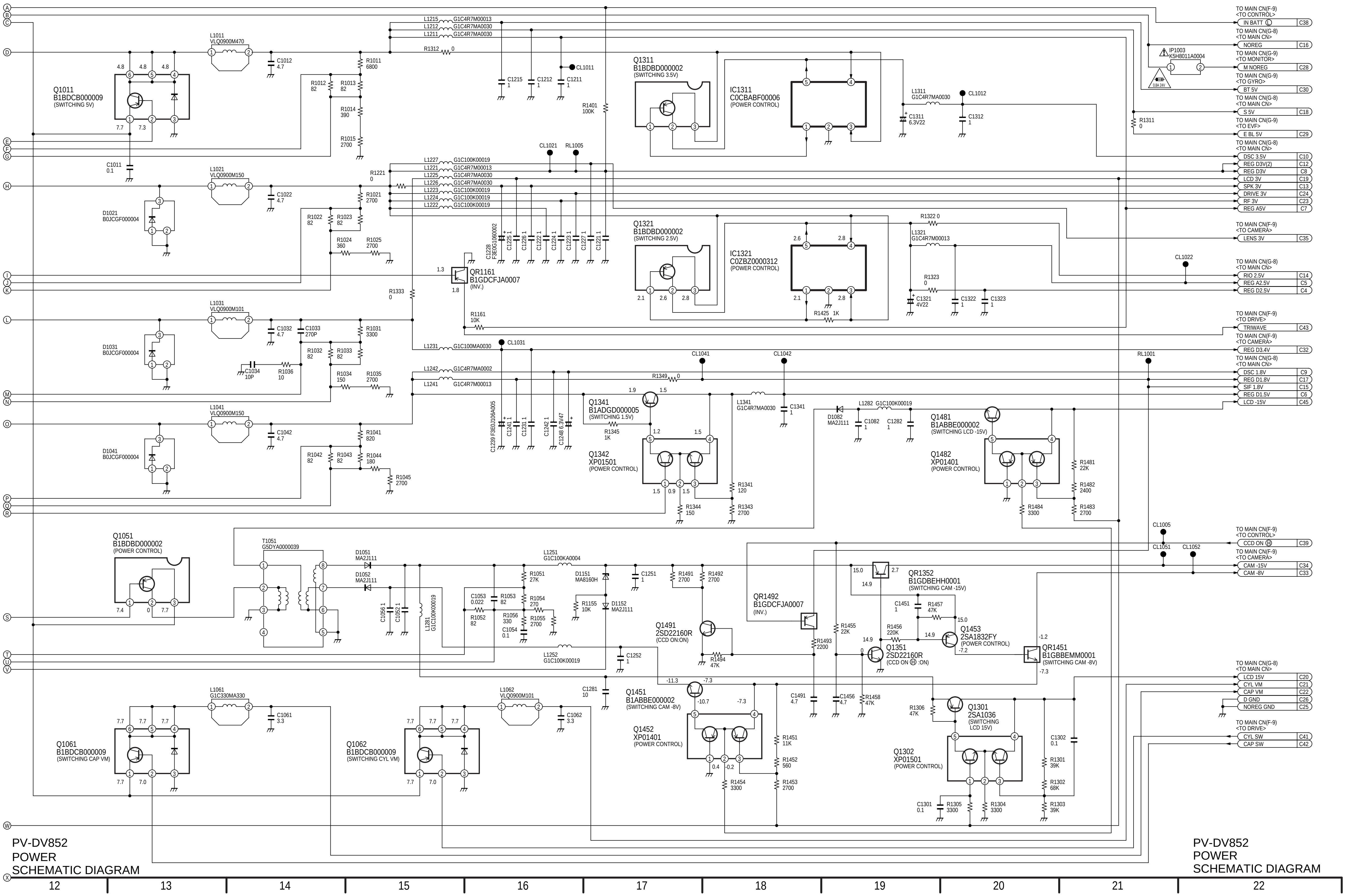
CAUTION:FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 3.15A 24V FUSE.
ATTENTION:POUR UNE PROTECTION CONTINUE LES RISQUES D'INCENDIE N'UTILISERQUE DES FUSIBLE DEMEME TYPE3.15A 24V

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

PV-DV852
POWER SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
TO MAIN CN(F-9) <TO CONTROL>
IN BATT Ⓛ C38
TO MAIN CN(G-8) <TO MAIN CN>
NOREG C16
TO MAIN CN(G-9) <TO MONITOR>
M NOREG C28
IP1003 K5H8011A0004
0.8A 24V
TO MAIN CN(G-9) <TO GYRO>
BT 5V C30
TO MAIN CN(G-8) <TO MAIN CN>
S 5V C18
TO MAIN CN(G-9) <TO EVF>
E BL 5V C29
TO MAIN CN(G-8) <TO MAIN CN>
DSC 3.5V C10
REG D3V(2) C12
REG D3V C8
LCD 3V C19
SPK 3V C13
DRIVE 3V C24
RF 3V C23
REG A5V C7
TO MAIN CN(F-9) <TO CAMERA>
LENS 3V C35
TO MAIN CN(G-8) <TO MAIN CN>
RIO 2.5V C14
REG A2.5V C5
REG D2.5V C4
TO MAIN CN(F-9) <TO DRIVE>
TRIWAVE C43
TO MAIN CN(F-9) <TO CAMERA>
REG D3.4V C32
TO MAIN CN(G-8) <TO MAIN CN>
DSC 1.8V C9
REG D1.8V C17
SIF 1.8V C15
REG D1.5V C6
LCD -15V C45
TO MAIN CN(F-9) <TO CONTROL>
CCD ON Ⓗ C39
TO MAIN CN(F-9) <TO CAMERA>
CAM -15V C34
CAM -8V C33
TO MAIN CN(G-8) <TO MAIN CN>
LCD 15V C20
CYL VM C21
CAP VM C22
D GND C26
NOREG GND C25
TO MAIN CN(F-9) <TO DRIVE>
CYL SW C41
CAP SW C42
Q1011 B1BDCB000009 (SWITCHING 5V)
L1011 VLQ0900M470
C1012 4.7
R1011 6800
R1012 82
R1013 82
R1014 390
R1015 2700
C1011 0.1
L1215 G1C4R7M00013
L1212 G1C4R7MA0030
L1211 G1C4R7MA0030
R1312 0
C1215 1
C1212 1
C1211 1
CL1011
R1401 100K
Q1311 B1BDBD000002 (SWITCHING 3.5V)
IC1311 C0CBABF00006 (POWER CONTROL)
L1311 G1C4R7MA0030
CL1012
C1311 6.3V22
C1312 1
R1311 0
CL1021
RL1005
L1227 G1C100K00019
L1221 G1C4R7M00013
L1225 G1C4R7MA0030
L1226 G1C4R7MA0030
L1223 G1C100K00019
L1224 G1C100K00019
L1222 G1C100K00019
R1221 0
L1021 VLQ0900M150
C1022 4.7
D1021 B0JCGF000004
R1021 2700
R1022 82
R1023 82
R1024 360
R1025 2700
C1228 F3E0G1060002
C1225 1
C1226 1
C1222 1
C1224 1
C1223 1
C1227 1
C1221 1
Q1321 B1BDBD000002 (SWITCHING 2.5V)
IC1321 C0ZBZ0000312 (POWER CONTROL)
R1322 0
L1321 G1C4R7M00013
R1323 0
C1321 4V22
C1322 1
C1323 1
R1425 1K
CL1022
QR1161 B1GDCFJA0007 (INV.)
R1161 10K
R1333 0
L1031 VLQ0900M101
C1032 4.7
C1033 270P
R1031 3300
D1031 B0JCGF000004
R1032 82
R1033 82
C1034 10P
R1036 10
R1034 150
R1035 2700
L1231 G1C100MA0030
CL1031
L1242 G1C4R7MA0002
L1241 G1C4R7M00013
C1239 F3E0J1064A005
C1241 1
C1231 1
C1242 1
C1248 6.3V47
R1349 0
CL1041
CL1042
RL1001
Q1341 B1ADGD000005 (SWITCHING 1.5V)
R1345 1K
Q1342 XP01501 (POWER CONTROL)
L1341 G1C4R7MA0030
C1341 1
R1341 120
R1344 150
R1343 2700
D1082 MA2J111
L1282 G1C100K00019
C1082 1
C1282 1
Q1481 B1ABBE000002 (SWITCHING LCD -15V)
Q1482 XP01401 (POWER CONTROL)
R1481 22K
R1482 2400
R1483 2700
R1484 3300
L1041 VLQ0900M150
C1042 4.7
D1041 B0JCGF000004
R1041 820
R1042 82
R1043 82
R1044 180
R1045 2700
Q1051 B1BDBD000002 (POWER CONTROL)
T1051 G5DYA0000039
D1051 MA2J111
D1052 MA2J111
C1056 1
C1052 1
L1281 G1C100K00019
C1053 0.022
R1053 82
R1052 82
R1051 27K
R1054 270
R1056 330
R1055 2700
C1054 0.1
L1251 G1C100KA0004
D1151 MA8160H
R1155 10K
D1152 MA2J111
C1251 1
R1491 2700
R1492 2700
L1252 G1C100K00019
C1252 1
C1281 10
Q1491 2SD22160R (CCD ON:ON)
R1494 47K
QR1492 B1GDCFJA0007 (INV.)
R1493 2200
R1455 22K
QR1352 B1GDBEHH0001 (SWITCHING CAM -15V)
C1451 1
R1457 47K
R1456 220K
Q1453 2SA1832FY (POWER CONTROL)
Q1351 2SD22160R (CCD ON Ⓗ :ON)
QR1451 B1GBBEMM0001 (SWITCHING CAM -8V)
CL1005
CL1051
CL1052
Q1451 B1ABBE000002 (SWITCHING CAM -8V)
Q1452 XP01401 (POWER CONTROL)
R1451 11K
R1452 560
R1453 2700
R1454 3300
C1491 4.7
C1456 4.7
R1458 47K
R1306 47K
Q1301 2SA1036 (SWITCHING LCD 15V)
Q1302 XP01501 (POWER CONTROL)
C1302 0.1
R1301 39K
R1302 68K
R1303 39K
C1301 0.1
R1305 3300
R1304 3300
L1061 G1C330MA330
C1061 3.3
Q1061 B1BDCB000009 (SWITCHING CAP VM)
L1062 VLQ0900M101
C1062 3.3
Q1062 B1BDCB000009 (SWITCHING CYL VM)
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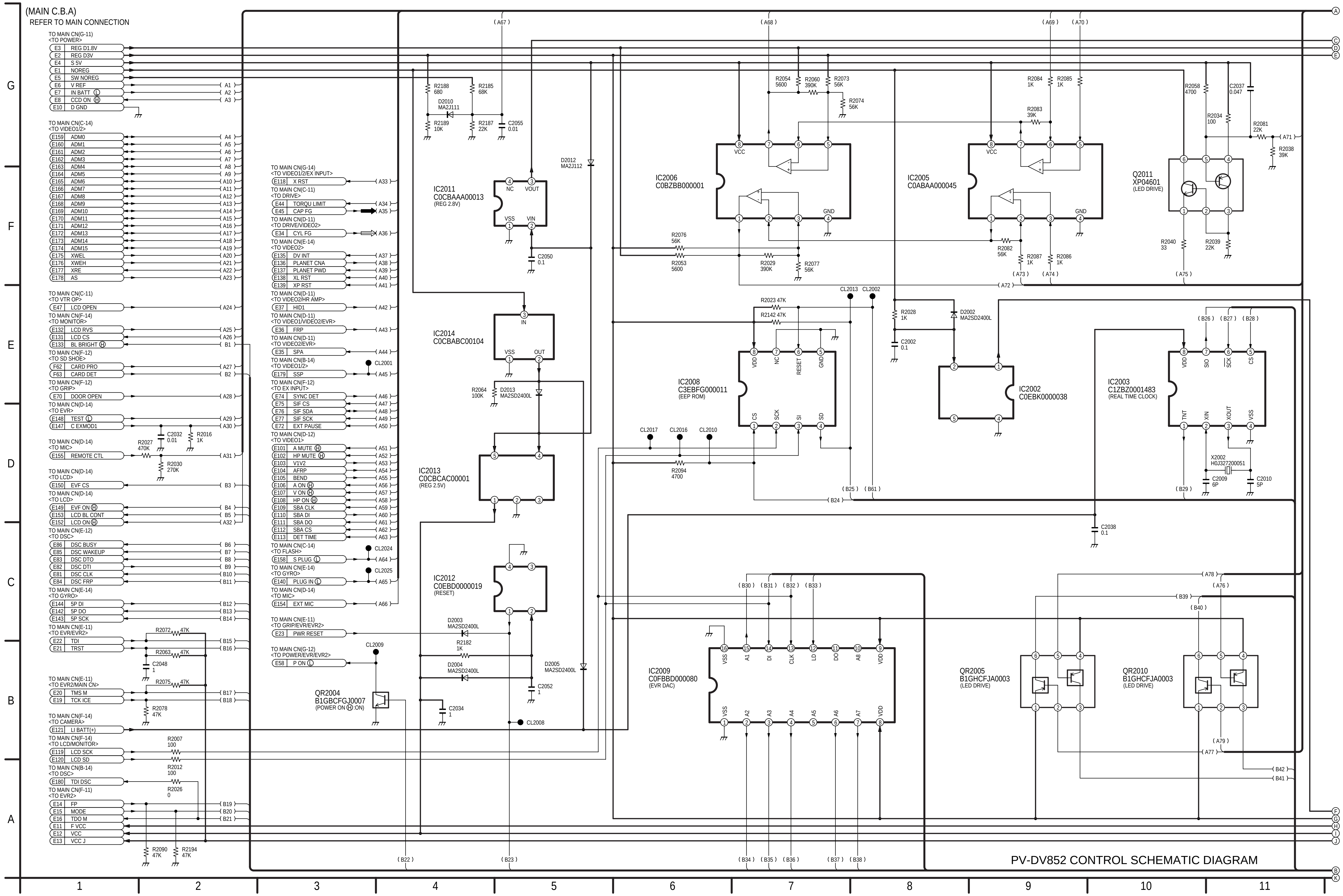
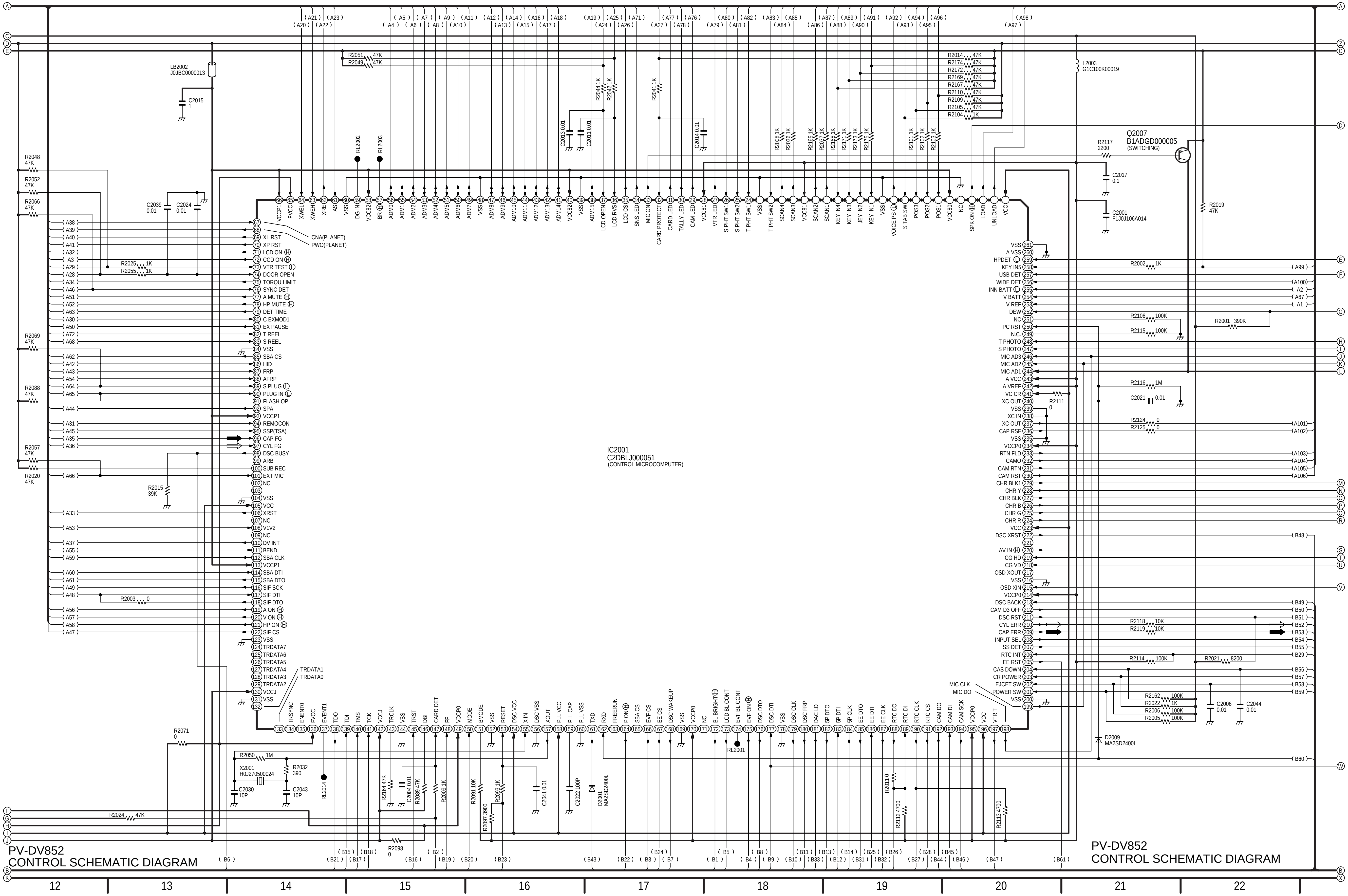
PV-DV852
POWER
SCHEMATIC DIAGRAM

PV-DV852
POWER
SCHEMATIC DIAGRAM

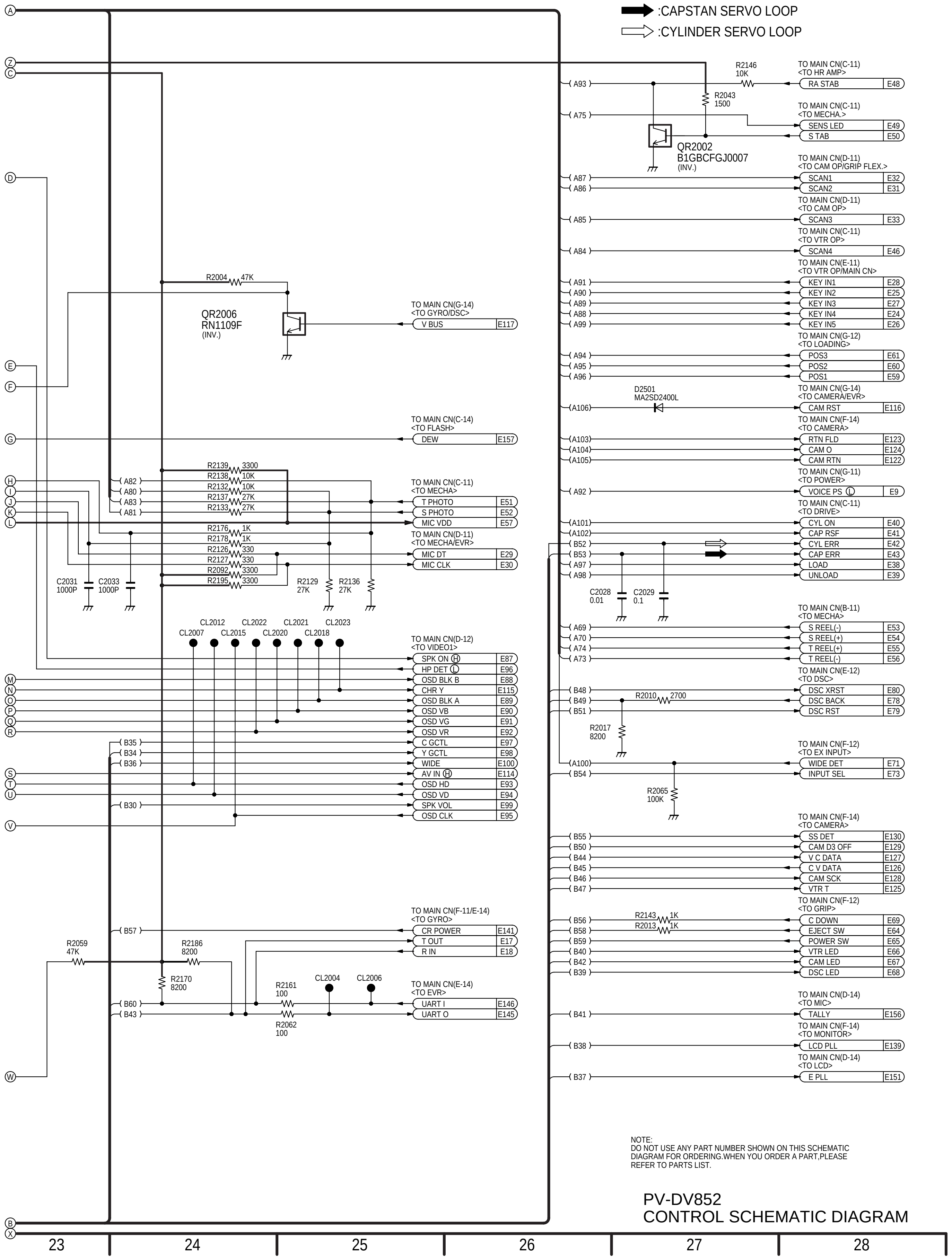
11.21. CONTROL SCHEMATIC DIAGRAM


(MAIN C.B.A)
REFER TO MAIN CONNECTION
TO MAIN CN(G-11) <TO POWER>
E3 REG D1.8V
E2 REG D3V
E4 S 5V
E1 NOREG
E5 SW NOREG
E6 V REF
E7 IN BATT Ⓛ
E8 CCD ON Ⓗ
E10 D GND
TO MAIN CN(C-14) <TO VIDEO1/2>
E159 ADM0
E160 ADM1
E161 ADM2
E162 ADM3
E163 ADM4
E164 ADM5
E165 ADM6
E166 ADM7
E167 ADM8
E168 ADM9
E169 ADM10
E170 ADM11
E171 ADM12
E172 ADM13
E173 ADM14
E174 ADM15
E175 XWEL
E176 XWEH
E177 XRE
E178 AS
TO MAIN CN(C-11) <TO VTR OP>
E47 LCD OPEN
TO MAIN CN(F-14) <TO MONITOR>
E132 LCD RVS
E131 LCD CS
E133 BL BRIGHT Ⓗ
TO MAIN CN(F-12) <TO SD SHOE>
F62 CARD PRO
F63 CARD DET
TO MAIN CN(F-12) <TO GRIP>
E70 DOOR OPEN
TO MAIN CN(D-14) <TO EVR>
E148 TEST Ⓛ
E147 C EXMOD1
TO MAIN CN(D-14) <TO MIC>
E155 REMOTE CTL
TO MAIN CN(D-14) <TO LCD>
E150 EVF CS
TO MAIN CN(D-14) <TO LCD>
E149 EVF ON Ⓗ
E153 LCD BL CONT
E152 LCD ON Ⓗ
TO MAIN CN(E-12) <TO DSC>
E86 DSC BUSY
E85 DSC WAKEUP
E83 DSC DTO
E82 DSC DTI
E81 DSC CLK
E84 DSC FRP
TO MAIN CN(E-14) <TO GYRO>
E144 5P DI
E142 5P DO
E143 5P SCK
TO MAIN CN(E-11) <TO EVR/EVR2>
E22 TDI
E21 TRST
TO MAIN CN(E-11) <TO EVR2/MAIN CN>
E20 TMS M
E19 TCK ICE
TO MAIN CN(F-14) <TO CAMERA>
E121 LI BATT(+)
TO MAIN CN(F-14) <TO LCD/MONITOR>
E119 LCD SCK
E120 LCD SD
TO MAIN CN(B-14) <TO DSC>
E180 TDI DSC
TO MAIN CN(F-11) <TO EVR2>
E14 FP
E15 MODE
E16 TDO M
E11 F VCC
E12 VCC
E13 VCC J
R2027 470K
C2032 0.01
R2016 1K
R2030 270K
R2072 47K
R2063 47K
C2048 1
R2075 47K
R2078 47K
R2007 100
R2012 100
R2026 0
R2090 47K
R2194 47K
TO MAIN CN(G-14) <TO VIDEO1/2/EX INPUT>
E118 X RST
TO MAIN CN(C-11) <TO DRIVE>
E44 TORQU LIMIT
E45 CAP FG
TO MAIN CN(D-11) <TO DRIVE/VIDEO2>
E34 CYL FG
TO MAIN CN(E-14) <TO VIDEO2>
E135 DV INT
E136 PLANET CNA
E137 PLANET PWD
E138 XL RST
E139 XP RST
TO MAIN CN(D-11) <TO VIDEO2/HR AMP>
E37 HID1
TO MAIN CN(D-11) <TO VIDEO1/VIDEO2/EVR>
E36 FRP
TO MAIN CN(D-11) <TO VIDEO2/EVR>
E35 SPA
TO MAIN CN(B-14) <TO VIDEO1/2>
E179 SSP
TO MAIN CN(F-12) <TO EX INPUT>
E74 SYNC DET
E75 SIF CS
E76 SIF SDA
E77 SIF SCK
E72 EXT PAUSE
TO MAIN CN(D-12) <TO VIDEO1>
E101 A MUTE Ⓗ
E102 HP MUTE Ⓗ
E103 V1V2
E104 AFRP
E105 BEND
E106 A ON Ⓗ
E107 V ON Ⓗ
E108 HP ON Ⓗ
E109 SBA CLK
E110 SBA DI
E111 SBA DO
E112 SBA CS
E113 DET TIME
TO MAIN CN(C-14) <TO FLASH>
E158 S PLUG Ⓛ
TO MAIN CN(E-14) <TO GYRO>
E140 PLUG IN Ⓛ
TO MAIN CN(D-14) <TO MIC>
E154 EXT MIC
TO MAIN CN(E-11) <TO GRIP/EVR/EVR2>
E23 PWR RESET
TO MAIN CN(G-12) <TO POWER/EVR/EVR2>
E58 P ON Ⓛ
CL2001
CL2024
CL2025
CL2009
QR2004 B1GBCFGJ0007 (POWER ON Ⓗ:ON)
R2188 680
R2185 68K
D2010 MA2J111
R2189 10K
R2187 22K
C2055 0.01
D2012 MA2J112
IC2011 C0CBAAA00013 (REG 2.8V)
NC VOUT VSS VIN
C2050 0.1
IC2014 C0CBABC00104
IN VSS OUT
R2064 100K
D2013 MA2SD2400L
IC2013 C0CBCAC00001 (REG 2.5V)
IC2012 C0EBD0000019 (RESET)
D2003 MA2SD2400L
R2182 1K
D2004 MA2SD2400L
D2005 MA2SD2400L
C2052 1
C2034 1
CL2008
R2054 5600
R2060 390K
R2073 56K
R2074 56K
IC2006 C0BZBB000001
VCC GND
R2076 56K
R2053 5600
R2029 390K
R2077 56K
R2084 1K
R2085 1K
R2083 39K
IC2005 C0ABAA000045
VCC GND
R2082 56K
R2087 1K
R2086 1K
R2058 4700
C2037 0.047
R2034 100
R2081 22K
R2038 39K
Q2011 XP04601 (LED DRIVE)
R2040 33
R2039 22K
CL2013 CL2002
R2023 47K
R2142 47K
IC2008 C3EBFG000011 (EEP ROM)
VDD NC RESET GND CS SCK SI SO
CL2017 CL2016 CL2010
R2094 4700
R2028 1K
D2002 MA2SD2400L
C2002 0.1
IC2002 C0EBK0000038
IC2003 C1ZBZ0001483 (REAL TIME CLOCK)
VDD SIO SCK CS TNT XIN XOUT VSS
X2002 H0J327200051
C2009 6P
C2010 5P
C2038 0.1
IC2009 C0FBBD000080 (EVR DAC)
VSS A1 DI CLK LD DO A8 VDD VSS A2 A3 A4 A5 A6 A7 VDD
QR2005 B1GHCFJA0003 (LED DRIVE)
QR2010 B1GHCFJA0003 (LED DRIVE)
A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25 A26 A27 A28 A29 A30 A31 A32 A33 A34 A35 A36 A37 A38 A39 A40 A41 A42 A43 A44 A45 A46 A47 A48 A49 A50 A51 A52 A53 A54 A55 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A73 A74 A75 A76 A77 A78 A79
B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27 B28 B29 B30 B31 B32 B33 B34 B35 B36 B37 B38 B39 B40 B41 B42 B61
A B C D E F G H I J K
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11
PV-DV852 CONTROL SCHEMATIC DIAGRAM


IC2001
C2DBLJ000051
(CONTROL MICROCOMPUTER)
Q2007
B1ADGD000005
(SWITCHING)
LB2002
J0JBC0000013
L2003
G1C100K00019
X2001
H0J270500024
D2001
MA2SD2400L
D2009
MA2SD2400L
12
13
14
15
16
17
18
19
20
21
22

PV-DV852
CONTROL SCHEMATIC DIAGRAM

PV-DV852
CONTROL SCHEMATIC DIAGRAM


:CAPSTAN SERVO LOOP
:CYLINDER SERVO LOOP
QR2002
B1GBCFGJ0007
(INV.)
QR2006
RN1109F
(INV.)
D2501
MA2SD2400L
TO MAIN CN(C-11) <TO HR AMP>
RA STAB
TO MAIN CN(C-11) <TO MECHA.>
SENS LED
S TAB
TO MAIN CN(D-11) <TO CAM OP/GRIP FLEX.>
SCAN1
SCAN2
TO MAIN CN(D-11) <TO CAM OP>
SCAN3
TO MAIN CN(C-11) <TO VTR OP>
SCAN4
TO MAIN CN(E-11) <TO VTR OP/MAIN CN>
KEY IN1
KEY IN2
KEY IN3
KEY IN4
KEY IN5
TO MAIN CN(G-14) <TO GYRO/DSC>
V BUS
TO MAIN CN(G-12) <TO LOADING>
POS3
POS2
POS1
TO MAIN CN(G-14) <TO CAMERA/EVR>
CAM RST
TO MAIN CN(C-14) <TO FLASH>
DEW
TO MAIN CN(F-14) <TO CAMERA>
RTN FLD
CAM O
CAM RTN
TO MAIN CN(G-11) <TO POWER>
VOICE PS Ⓛ
TO MAIN CN(C-11) <TO MECHA>
T PHOTO
S PHOTO
MIC VDD
TO MAIN CN(C-11) <TO DRIVE>
CYL ON
CAP RSF
CYL ERR
CAP ERR
LOAD
UNLOAD
TO MAIN CN(D-11) <TO MECHA/EVR>
MIC DT
MIC CLK
TO MAIN CN(B-11) <TO MECHA>
S REEL(-)
S REEL(+)
T REEL(+)
T REEL(-)
TO MAIN CN(D-12) <TO VIDEO1>
SPK ON Ⓗ
HP DET Ⓛ
OSD BLK B
CHR Y
OSD BLK A
OSD VB
OSD VG
OSD VR
C GCTL
Y GCTL
WIDE
AV IN Ⓗ
OSD HD
OSD VD
SPK VOL
OSD CLK
TO MAIN CN(E-12) <TO DSC>
DSC XRST
DSC BACK
DSC RST
TO MAIN CN(F-12) <TO EX INPUT>
WIDE DET
INPUT SEL
TO MAIN CN(F-14) <TO CAMERA>
SS DET
CAM D3 OFF
V C DATA
C V DATA
CAM SCK
VTR T
TO MAIN CN(F-12) <TO GRIP>
C DOWN
EJECT SW
POWER SW
VTR LED
CAM LED
DSC LED
TO MAIN CN(F-11/E-14) <TO GYRO>
CR POWER
T OUT
R IN
TO MAIN CN(E-14) <TO EVR>
UART I
UART O
TO MAIN CN(D-14) <TO MIC>
TALLY
TO MAIN CN(F-14) <TO MONITOR>
LCD PLL
TO MAIN CN(D-14) <TO LCD>
E PLL
23
24
25
26
27
28

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

PV-DV852
CONTROL SCHEMATIC DIAGRAM

11.21.1. CONTROL I/O TABLE

IC2001 : CONTROL MICROCOMPUTER

Pin No.	Signal Name	I/O	Explanation
1	VCC	I	Voltage
2	UNLOAD	O	Mecha. Unload
3	LOAD	O	Mecha. Load
4	SPK ON Ⓗ	O	Speaker ON/OFF
5	NC	–	–
6	VCCB0	I	Voltage
7	POS1	I	Mecha. Position SW
8	POS2	I	Mecha. Position SW
9	POS3	I	Mecha. Position SW
10	S TAB SW	I	Safety Tab SW
11	VOICE PS Ⓛ	O	Voice PS ON/OFF
12	VSS	–	GND
13	KEY IN1	I	KEY Scan IN1
14	KEY IN2	I	KEY Scan IN2
15	KEY IN3	I	KEY Scan IN3
16	KEY IN4	I	KEY Scan IN4
17	SCAN1	O	KEY Scan OUT1
18	SCAN2	O	KEY Scan OUT2
19	VCCB1	I	Voltage
20	SCAN3	O	KEY Scan OUT3
21	SCAN4	O	KEY Scan OUT4
22	T PHT SW2	I	Tape Take-up Photo Sensor ADJ.
23	VSS	–	GND
24	T PHT SW1	I	Tape Take-up Photo Sensor ADJ.
25	S PHT SW2	I	Tape Supply Photo Sensor ADJ.
26	S PHT SW1	I	Tape Supply Photo Sensor ADJ.
27	VTR LED	O	VTR LED
28	VCCB1	I	Voltage
29	CAM LED	O	CAMERA LED
30	TALLY LED	O	TALLY-LED
31	CARD LED	O	Card Playback Mode LED
32	CARD PRO	I	Card Protect
33	MIC ON	O	MIC ON
34	SNS LED	O	Tape Sensor LED
35	LCD CS	O	LCD Chip Select
36	LCD RVS	I	LCD Reverse Detect
37	LCD OPEN	I	LCD Open/Close Detect
38	ADM15	I/O	Address/Data
39	VSS	–	GND
40	VCC B2	I	Voltage
41	ADM14	I/O	Address/Data
42	ADM13	I/O	Address/Data
43	ADM12	I/O	Address/Data
44	ADM11	I/O	Address/Data
45	ADM10	I/O	Address/Data
46	ADM9	I/O	Address/Data
47	ADM8	I/O	Address/Data
48	VSS	–	GND
49	ADM7	I/O	Address/Data
50	ADM6	I/O	Address/Data
51	ADM5	I/O	Address/Data
52	ADM4	I/O	Address/Data
53	ADM3	I/O	Address/Data
54	ADM2	I/O	Address/Data
55	ADM1	I/O	Address/Data
56	ADM0	I/O	Address/Data
57	BRⒽ	–	–
58	VCC B2	I	Voltage
59	BG IN	–	–
60	VSS	–	GND
61	AS	I	Address Latch

Pin No.	Signal Name	I/O	Explanation
62	XRE	O	X Read Strobe
63	XWEⒽ	I	X Write Strobe
64	XWEⓁ	I	X Write Strobe
65	FVCC	I	Voltage
66	VCCP1	I	Voltage
67	CNA[PLANET]	I	CNA (PLANET)
68	PNO[PLANET]	O	PNO (PLANET)
69	XLRST	O	XL Reset
70	XPRST	O	XP Reset
71	LCD ONⒽ	O	LCD ON/OFF
72	CCD ONⒽ	O	CCD ON
73	VTR TESTⓁ	I	Sync Serial Communication Enable Signal
74	DOOR OPEN	I	Door Open Detect
75	TORQU LIMIT	O	Torque Limit
76	SYNC DET	I	Sync Detect
77	A MUTEⒽ	O	Audio Mute
78	HP MUTE Ⓗ	O	Headphone Mute
79	DET TIME	O	AV Terminal Load Detect
80	C EXMOD1	I	EVR Mode
81	EX PAUSE	O	Exit Pause
82	T REEL	I	Take-up Reel Pulse
83	S REEL	I	Supply Reel Pulse
84	VSS	–	GND
85	SBA CS	O	Audio Serial Chip Select
86	HID	I	HSW
87	FRP	I	Frame Reference Pulse
88	A FRP	I	Frame Reference Pulse
89	S PLUGⓁ	I	S Plug ON/OFF
90	PLUG IN Ⓛ	I	AV Terminal ON/OFF
91	FLASH OP	–	–
92	SPA	O	ATF Sampling Pulse
93	VCCP1	I	Voltage
94	REMOCON	I	Remote Control Pulse
95	SSP [TSA]	I	SSP
96	CAP FG	I	Capstan FG
97	CYL FG	I	Cylinder FG
98	DSC BUSY	O	DSC Busy
99	ARB	–	–
100	SUB REC	–	–
101	EXT MIC	I	EXT. Mic Select
102	NC	–	–
103	NC	–	–
104	VSS	–	GND
105	VCC	I	Voltage
106	XRST	O	T Reset
107	NC	–	–
108	V1V2	I	V1 V2
109	NC	–	–
110	DV INT	O	Digital Interface
111	BEND	I	Data Block End Request
112	SBA CLK	O	Audio Serial Clock
113	VCCP1	I	Voltage
114	SBA DTI	I	Audio Serial Data
115	SBA DTO	O	Audio Serial Data
116	SIF SCK	O	SIF Serial Clock
117	SIF DTI	I	SIF Serial Data
118	SIF DTO	O	SIF Serial Data
119	A ONⒽ	O	Audio Line ON/OFF
120	V ONⒽ	O	Video Line ON/OFF
121	HP ONⒽ	O	Headphone Line ON/OFF
122	SIF CS	O	SIF Chip Select

Pin No.	Signal Name	I/O	Explanation
123	VSS	–	GND
124	TRDATA7	–	–
125	TRDATA6	–	–
126	TRDATA5	–	–
127	TRDATA4	–	–
128	TRDATA3	–	–
129	TRDATA2	–	–
130	VCCJ	I	Voltage
131	VSS	–	GND
132	TRDATA1	–	–
133	TRDATA0	–	–
134	TRSYNC	–	–
135	EVENT0	–	–
136	FVCC	I	Voltage
137	EVENT1	–	–
138	TDO	O	TDO
139	TDI	I	TDI
140	TMS	I	TMS
141	TCK	I	TCK
142	VCCJ	I	Voltage
143	TRCLK	–	–
144	VSS	–	GND
145	TRST	I	T Reset
146	DBI	–	–
147	CARD DET	I	Card Detect
148	FP	I	FP
149	VCCP0	I	Voltage
150	MODE	I	Mode Select
151	BMODE	–	–
152	VSS	–	GND
153	RESET	O	Reset Signal
154	OSC VCC	I	Voltage
155	X IN	I	Clock (27MHz)
156	OSC VSS	–	GND
157	X OUT	O	Clock (27MHz)
158	PLL VCC	I	Voltage
159	PLL CAP	–	–
160	PLL VSS	–	–
161	TXD	O	RS232C Data
162	RXD	I	RS232C Data
163	FREERUN	–	–
164	P ON Ⓗ	O	BUS Voltage ON
165	SBA CS	–	–
166	EVF CS	O	EVF Chip Select
167	EE CS	O	EEPROM Chip Select
168	DSC WAKEUP	O	DSC Wakeup
169	VSS	–	GND
170	VCCP0	I	Voltage
171	NC	–	–
172	BL BRIGHTⒽ	O	Monitor Backlight ON/OFF
173	LCD BL CONT	O	LCD Backlight Control
174	EVF BL CONT	–	–
175	EVF ONⒽ	O	EVF ON/OFF
176	DSC DTO	O	DSC Serial Data
177	DSC DTI	I	DSC Serial Data
178	VSS	–	GND
179	DSC CLK	O	DSC Serial Clock
180	DSC FRP	O	DSC Frame Start Pulse
181	DAC LD	O	DAC Chip Select
182	5P DTO	O	5P Serial Data
183	5P DTI	I	5P Serial Data
184	5P CLK	O	5P Serial Clock
185	EE DTO	O	EEPROM/DAC/LCD/EVF Data
186	EE DTI	I	EEPROM/DAC/LCD/EVF Data
187	EE CLK	O	EEPROM/DAC/LCD/EVF Clock
188	RTC DO	O	RTC Serial Data
189	RTC DI	I	RTC Serial Data
190	RTC CLK	O	RTC Serial Clock
191	RTC CS	O	RTC Handshake
192	CAM DO	O	Camera Serial Data
193	CAM DI	I	Camera Serial Data
194	CAM SCK	O	Camera Serial Clock
195	VCCP0	I	Voltage
196	VCC	I	Voltage
197	VTR T	O	Sync Serial Communication Enable Signal
198	MIC DO	O	MIC Serial Data
199	MIC CLK	O	MIC Serial Clock
200	VSS	–	GND
201	POWER SW	I	POWER ON SW
202	EJECT SW	I	EJECT SW ON
203	CR POWER	I	CR POWER ON
204	CAS DOWN	I	Cassette Down Detect
205	EE RST	O	EEPROM Reset
206	RTC INT	I	RTC Interface
207	SS DET	I	Start/Stop Detect
208	INPUT SEL	O	Input Select
209	CAP ERR	O	Capstan Error
210	CYL ERR	O	Cylinder Error
211	DSC RST	O	DSC Reset
212	CAM D3 OFF	O	Camera 3V Voltage Control
213	DSC BACK	I	DSC Back
214	VCCP0	I	Voltage
215	OSD XIN	I	OSD Clock
216	VSS	–	GND
217	OSD XOUT	–	–
218	CG VD	I	V SYNC
219	CD HD	I	H SYNC
220	AV IN Ⓗ	O	AV IN ON/OFF
221	NC	–	–
222	DSC XRST	O	DSC X Reset
223	VCC	I	Voltage
224	CHR R	O	Character Generation R
225	CHR G	O	Character Generation G
226	CHR B	O	Character Generation B
227	CHR BLK	O	Character Generation Blanking
228	CHR Y	O	Character Generation Y
229	CHR BLK1	O	Character Generation Blanking
230	CAM RST	O	Camera Reset
231	CAM RTN	O	Camera Clock Reference
232	CAMO	O	VTR Data
233	RTN FLD	O	Field Detect
234	VCCP0	I	Voltage
235	VSS	–	GND
236	CAP RSF	O	Capstan ON
237	CYL ON Ⓛ	O	Cylinder ON/OFF
238	XC IN	–	–
239	VSS	–	GND
240	XC OUT	–	–
241	VCCR	I	Voltage
242	AVREF	I	Voltage
243	AVCC	I	Voltage
244	MIC AD1	I	Contact ID Detect
245	MIC AD2	I	Contact ID Detect
246	MIC AD3	I	Contact ID Detect
247	S PHOTO	I	Tape Supply Photo Sensor Detect
248	T PHOTO	I	Tape Take-up Photo Sensor Detect
249	NC	–	–
250	PC RST	I	PC Reset Signal Detect
251	NC	–	–
252	DEW	I	DEW Sensor
253	VREF	I	Battery Reference Voltage Detect
254	VBATT	–	–
255	IN BATT Ⓛ	I	Battery Detect
256	WIDE DET	I	Wide Detect
257	USB DET	I	USB Detect
258	KEY IN5	I	KEY Scan IN5
259	HP DET Ⓛ	I	Headphone ON/OFF
260	AVSS	–	GND
261	VSS	–	GND

11.21.2. CONTROL DC VOLTAGE CHART (SP MODE)

ICs DC VOLTAGE CHART (SP MODE)

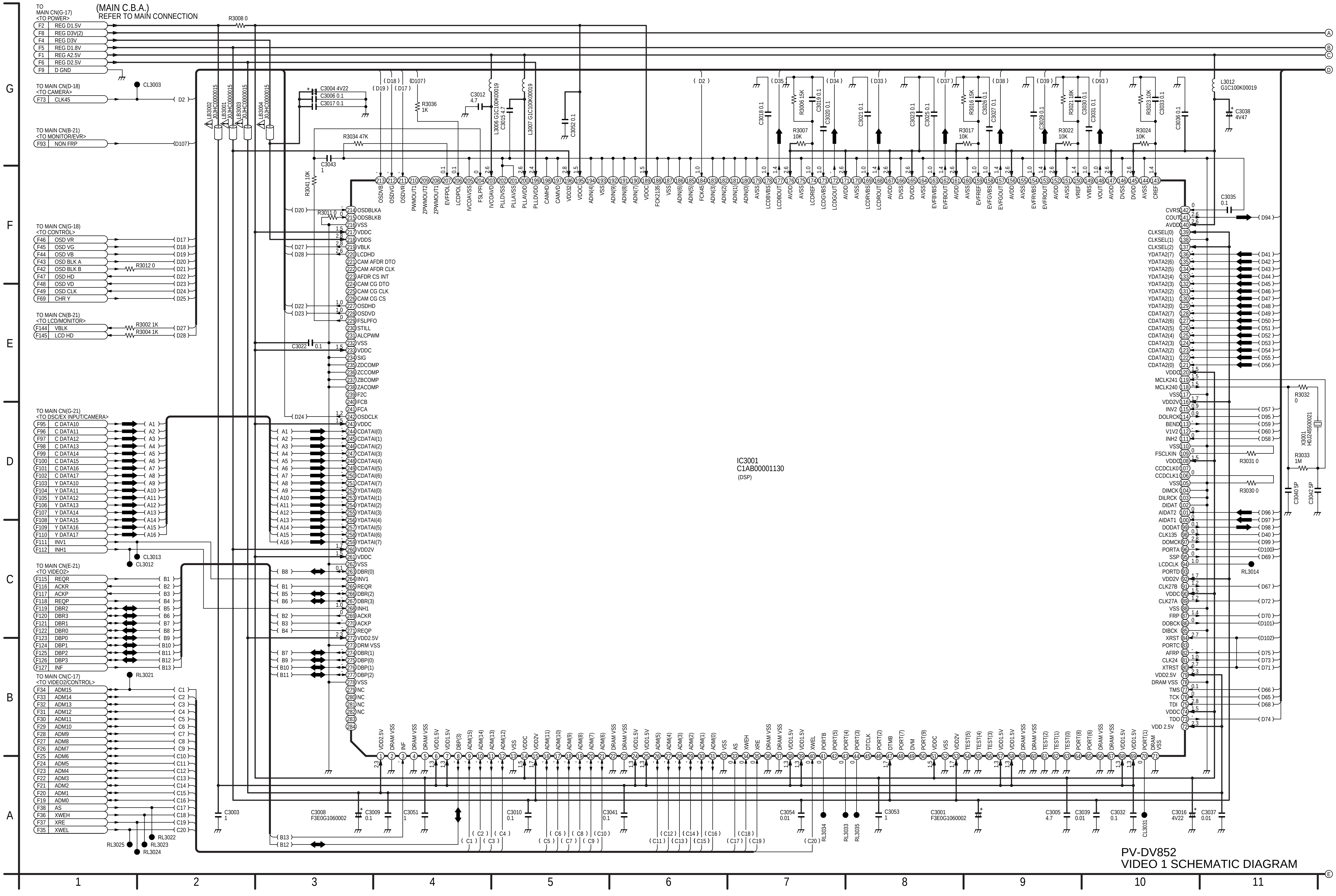
Ref. No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.5	0	0	1.7	0	1.8	2.8	0	0	2.8	0	0	2.8	2.8	2.8	2.8	2.7	2.7	2.9	2.7
PLAY	2.5	0	0	1.7	0	1.8	2.8	2.8	0	0.1	0	0	2.8	2.8	2.8	2.8	2.8	2.7	2.9	2.7
REC	2.5	0	0	1.7	0	1.8	2.8	2.8	0	0.1	0	0	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.7
F.F.	2.5	0	0	1.7	0	1.8	2.8	2.8	2.8	0.1	0	0	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.8
REW	2.5	0	0	1.7	0	1.8	0	2.8	2.8	0.1	0	0	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.8
Ref. No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.7	0	0	0	0	0	0	2.9	0.7	0	0	0	2.7	2.7	2.7	0	0	0.1	0	1.8
PLAY	2.7	0	0	0	0	0	0	2.9	0.7	0	0	0	2.7	2.7	2.7	0	0	0.1	0	1.8
REC	2.8	0	0	0	0	0	0	2.9	0.7	0	0	0	2.7	2.7	2.7	0	0	0.1	0	1.8
F.F.	2.8	0	0	0	0	0	0	2.9	0.7	0	0	0	2.7	2.7	2.7	0	0	0.1	0	1.8
REW	2.8	0	0	0	0	0	0	2.9	0.7	0	0	0	2.7	2.7	2.7	0	0	0.1	0	1.8
Ref. No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	1.8	0.1	0
PLAY	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	1.8	0.1	0
REC	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	1.8	0.1	0
F.F.	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	1.8	0.1	0
REW	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0	1.8	0.1	0
Ref. No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0	0	2.9	1.8	-	0	2.7	2.7	4.1	2.8	2.8	0	0.2	2.8	0	0	0	-
PLAY	0	0	0	0	2.9	1.8	-	0	2.7	2.7	4.1	0	2.8	0	0.3	2.8	0	0	0	-
REC	0	0	0	0	2.9	1.8	-	0	2.7	2.7	4.8	2.8	2.8	0	0.3	2.8	0	0	0	-
F.F.	0	0	0	0	2.9	1.8	-	0	2.7	2.7	4.8	0	2.8	0	0.3	2.8	0	0	0	-
REW	0	0	0	0	2.9	1.8	-	0	2.7	2.7	4.8	0	2.8	0	0.3	2.8	0	0	0	-
Ref. No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	-	2.8	0	0	-	1.4	1.4	-	0	0	-	-	1.8	2.5	0	1.4	1.4	0	0	0
PLAY	-	2.4	2.4	0	-	1.4	1.4	-	0	0	-	-	1.8	2.5	0	1.4	1.4	0	0	0
REC	-	1.4	1.4	0	-	1.4	1.4	-	0	0	-	-	1.8	2.5	0	1.4	1.4	0	0	0
F.F.	-	1.4	1.4	0	-	1.4	1.4	-	0	0	-	-	1.8	2.5	0	1.4	1.4	0	0	0
REW	-	1.4	1.4	0	-	1.4	1.4	-	0	0	-	-	1.8	2.5	0	1.4	1.4	0	0	0
Ref. No.	IC2001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	-	0	2.5	0	-	-	-	-	-	1.7	1.8	1.7	0	-	0	0	2.8	0
PLAY	0	0	-	0	2.5	0	-	-	-	-	-	1.7	1.8	1.7	0	-	0	0	2.8	0
REC	0	0	-	0	2.5	0	-	-	-	-	-	1.7	1.8	1.7	0	-	0	0	2.8	0
F.F.	0	0	-	0	2.5	0	-	-	-	-	-	1.7	1.8	1.7	0	-	0	0	2.8	0
REW	0	0	-	0	2.5	0	-	-	-	-	-	1.7	1.8	1.7	0	-	0	0	2.8	0
Ref. No.	IC2001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0	-	0	-	-	-	-	-	-	2.9	0	-	-	-	-	2.9	0	1.9	-	-
PLAY	0	-	0	-	-	-	-	-	-	2.9	0	-	-	-	-	2.9	0	1.9	-	-
REC	0	-	0	-	-	-	-	-	-	2.9	0	-	-	-	-	2.9	0	1.9	-	-
F.F.	0	-	0	-	-	-	-	-	-	2.9	0	-	-	-	-	2.9	0	1.9	-	-
REW	0	-	0	-	-	-	-	-	-	2.9	0	-	-	-	-	2.9	0	1.9	-	-
Ref. No.	IC2001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	-	2.9	0	0	0	1.4	0	2.8	2.9	0	2.8	0	2.8	2.5	1.4	0	1.4	2.5	0	0
PLAY	-	2.9	0	0	0	1.4	0	2.8	2.9	0	2.8	0	2.8	2.5	1.4	0	1.4	2.5	0	0
REC	-	2.9	0	0	0	1.4	0	2.8	2.9	0	2.8	0	2.8	2.5	1.4	0	1.4	2.5	0	0
F.F.	-	2.9	0	0	0	1.4	0	2.8	2.9	0	2.8	0	2.8	2.5	1.4	0	1.4	2.5	0	0
REW	-	2.9	0	0	0	1.4	0	2.8	2.9	0	2.8	0	2.8	2.5	1.4	0	1.4	2.5	0	0
Ref. No.	IC2001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
STOP	2.8	2.8	0	2.9	-	0	0	-	0	2.9	-	2.8	2.9	2.9	4.1	-	-	0	-	-
PLAY	2.8	2.0	0	2.9	-	0	0	-	0	2.9	-	2.8	2.9	2.9	4.1	-	-	0	-	-
REC	2.8	2.8	0	2.9	-	0	0	-	0	2.9	-	2.8	2.9	2.9	4.1	-	-	0	-	-
F.F.	2.8	2.0	0	2.9	-	0	0	-	0	2.9	-	2.8	2.9	2.9	4.1	-	-	0	-	-
REW	2.8	2.0	0	2.9	-	0	0	-	0	2.9	-	2.8	2.9	2.9	4.1	-	-	0	-	-
Ref. No.	IC2001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
STOP	0	2.5	2.4	2.8	2.8	0.5	2.8	2.8	2.8	2.8	2.8	0	0	0	2.9	2.5	0	2.8	2.8	0
PLAY	0	2.5	2.4	2.8	2.8	0.8	2.8	2.8	2.8	2.8	2.8	0	0	0	2.9	2.5	0	2.8	2.8	0
REC	0	2.5	2.4	2.8	2.8	1.2	2.8	2.8	2.8	2.8	2.8	0	0	0	2.9	2.5	0	2.8	2.8	0
F.F.	0	2.5	2.4	2.8	2.8	1.2	2.8	2.8	2.8	2.8	2.8	0	0	0	2.9	2.5	0	2.8	2.8	0
REW	0	2.5	2.4	2.8	2.8	1.2	2.8	2.8	2.8	2.8	2.8	0	0	0	2.9	2.5	0	2.8	2.8	0
Ref. No.	IC2001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
STOP	2.8	-	-	0	0	0	0	-	1.5	0	-	2.8	-	2.9	3.3	0	2.7	1.4	1.4	-
PLAY	2.8	-	-	0	0	0	0	-	1.5	0	-	2.8	-	2.9	3.3	0	3.3	1.4	1.4	-
REC	2.8	-	-	0	0	0	0	-	1.5	0	-	2.8	-	2.9	3.3	0	2.7	1.4	1.4	-
F.F.	2.8	-	-	0	0	0	0	-	1.5	0	-	2.8	-	2.9	3.3	0	2.7	1.4	1.4	-
REW	2.8	-	-	0	0	0	0	-	1.5	0	-	2.8	-	2.9	3.3	0	2.7	1.4	1.4	-
Ref. No.	IC2001																			
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
STOP	0	-	2.5	-	-	-	-	0	-	2.8	-	-	-	2.9	0	1.4	2.8	0	0	0
PLAY	0	-	2.5	-	-	-	-	0	-	2.8	-	-	-	2.9	0	0	0	0	0	0
REC	0	-	2.5	-	-	-	-	0	-	2.8	-	-	-	2.9	0	0	0	0	0	0
F.F.	0	-	2.5	-	-	-	-	0	-	2.8	-	-	-	2.9	0	0	0	0	0	0
REW	0	-	2.5	-	-	-	-	0	-	2.8	-	-	-	2.9	0	2.8	0	0	0	0

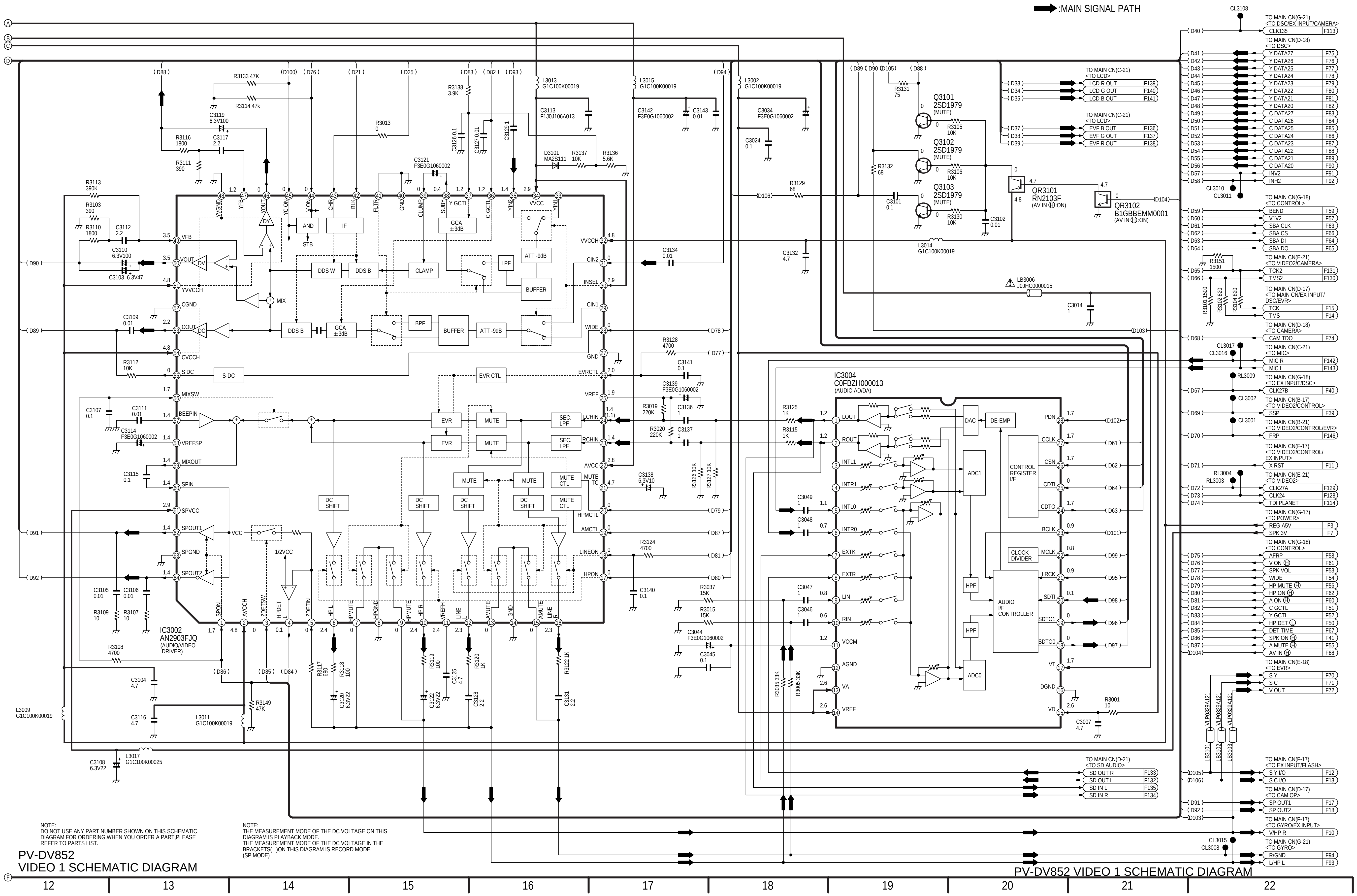
Ref. No.	IC2001																			
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
STOP	2.5	2.9	2.9	2.9	0	0	0	0	0	2.7	0	0.1	0	0	0	0.1	0	0	0	0
PLAY	2.5	2.9	2.9	2.9	0	0	0	0	0	2.7	0	0.1	0	0	0	0.1	0	0	0	0
REC	2.5	2.9	2.9	2.9	0	0	0	0	0	2.7	0	0.1	0	0	0	0.1	0	0	0	0
F.F.	2.5	2.9	2.9	2.9	0	0	0	2.8	0	2.7	0	0.1	0	0	0	0.1	0	0	0	0
REW	2.5	2.9	2.9	2.9	0	0	0	0	0	2.7	0	0.1	0	0	0	0.1	0	0	0	0
Ref. No.	IC2001				IC2002					IC2003										
MODE	261				1	2	3	4		1	2	3	4	5	6	7	8			
STOP	0				2.9	7.8	0	0		2.7	0.7	0.5	0	1.8	2.8	1.2	3.3			
PLAY	0				2.9	7.8	0	0		2.7	0.4	0.5	0	1.8	2.8	1.2	3.3			
REC	0				2.9	7.7	0	0		2.7	0.7	0.6	0	1.8	2.8	1.2	3.3			
F.F.	0				2.9	7.6	0	0		2.7	0.4	0.7	0	1.8	2.8	1.2	3.3			
REW	0				2.9	7.6	0	0		2.7	0.4	0.7	0	1.8	2.8	1.2	3.3			
Ref. No.	IC2005									IC2006										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
STOP	0.1	1.4	1.3	0	1.3	1.4	0.3	4.8		1.9	0.1	1.4	0	0	0.3	1.9	4.8			
PLAY	3.2	1.4	1.4	0	1.4	1.4	3.2	4.8		1.8	3.2	1.4	0	0	3.2	1.8	4.8			
REC	3.1	1.4	1.4	0	1.4	1.4	3.1	4.8		1.8	3.1	1.4	0	0	3.1	1.8	4.8			
F.F.	1.8	1.4	1.4	0	1.4	1.4	1.8	4.8		0.7	1.8	1.3	0	0	1.8	0.7	4.8			
REW	1.8	1.4	1.4	0	1.4	1.4	1.8	4.8		0.7	1.8	1.3	0	0	1.8	0.8	4.8			
Ref. No.	IC2008																			
MODE	1	2	3	4	5	6	7	8												
STOP	2.8	2.8	0.1	2.8	0	2.8	0	2.8												
PLAY	2.7	2.8	0.2	2.7	0	2.8	0	2.8												
REC	2.7	2.8	0.2	2.7	0	2.8	0	2.8												
F.F.	2.7	2.8	0.2	2.7	0	2.8	0	2.8												
REW	2.7	2.8	0.2	2.7	0	2.8	0	2.8												
Ref. No.	IC2009																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	1.9	1.2	0	0	2.3	1.9	2.8	2.8	0	0	0	2.8	0.1	1.9	0				
PLAY	0	1.9	1.2	0	0	2.4	1.9	2.8	2.8	0	0.1	0	2.8	0.2	1.6	0				
REC	0	1.9	1.2	0	0	2.3	1.9	2.8	2.8	0	0.1	0	2.8	0.2	1.9	0				
F.F.	0	1.9	1.2	0	0	2.3	1.9	2.8	2.8	0	0.1	0	2.8	0.2	1.6	0				
REW	0	1.9	1.2	0	0	2.3	1.9	2.8	2.8	0	0.1	0	2.8	0.1	1.6	0				
Ref. No.	IC2011					IC2012					IC2013						IC2014			
MODE	1	2	3	4		1	2	3	4		1	2	3	4	5		1	2	3	
STOP	0	4.1	2.8	0		2.8	2.5	0	0		2.5	0	0	4.1	4.1		0	3.4	7.8	
PLAY	0	4.1	2.8	0		2.8	2.5	0	0		2.5	0	0	4.1	4.1		0	3.4	7.8	
REC	0	4.1	2.8	0		2.8	2.5	0	0		2.5	0	0	4.1	4.1		0	3.4	7.7	
F.F.	0	4.1	2.8	0		2.8	2.5	0	0		2.5	0	0	4.1	4.1		0	3.4	7.6	
REW	0	4.1	2.8	0		2.8	2.5	0	0		2.5	0	0	4.1	4.1		0	3.4	7.6	

TRs DC VOLTAGE CHART (SP MODE)

Ref. No.	Q2007				Q2011							QR2002				QR2004				
MODE	E	C	B		1	2	3	4	5	6		E	C	B		E	C	B		
STOP	2.8	2.8	2.8		0.2	0	0	4.8	4.4	7.8		0	0	1.6		0	0	2.7		
PLAY	2.8	2.8	2.8		0.1	0	0	4.8	4.4	7.8		0	0	1.6		0	0	2.7		
REC	2.8	2.8	2.8		0.1	0	0	4.8	4.4	7.7		0	0	1.6		0	0	2.7		
F.F.	2.8	2.8	2.8		0.2	0.1	0.1	4.8	4.4	7.6		0	0.1	1.2		0	0	2.7		
REW	2.8	2.8	2.8		0.2	0.2	0.1	4.8	4.4	7.6		0	0.1	1.2		0	0	2.7		
Ref. No.	QR2005							QR2006				QR2010								
MODE	1	2	3	4	5	6		E	C	B		1	2	3	4	5	6			
STOP	2.8	2.8	0	2.8	2.8	0		0	2.8	0		2.8	2.7	2.7	2.8	0	0			
PLAY	2.8	2.8	0	2.8	2.8	0		0	2.8	0		2.8	0	0	2.8	2.8	2.7			
REC	2.8	2.8	2.7	2.8	0	0		0	2.8	0		2.8	2.8	2.7	2.8	0	0			
F.F.	2.8	2.8	0	2.8	2.8	0		0	2.8	0		2.8	0	0	2.8	2.8	2.7			
REW	2.8	2.8	0	2.8	2.8	0		0	2.8	0		2.8	0	0	2.8	2.8	2.7			

11.22. VIDEO 1 SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
TO MAIN CN(G-17) <TO POWER>
F2 REG D1.5V
F8 REG D3V(2)
F4 REG D3V
F5 REG D1.8V
F1 REG A2.5V
F6 REG D2.5V
F9 D GND
TO MAIN CN(D-18) <TO CAMERA>
F73 CLK45
TO MAIN CN(B-21) <TO MONITOR/EVR>
F93 NON FRP
TO MAIN CN(G-18) <TO CONTROL>
F46 OSD VR
F45 OSD VG
F44 OSD VB
F43 OSD BLK A
F42 OSD BLK B
F47 OSD HD
F48 OSD VD
F49 OSD CLK
F69 CHR Y
TO MAIN CN(B-21) <TO LCD/MONITOR>
F144 VBLK
F145 LCD HD
TO MAIN CN(G-21) <TO DSC/EX INPUT/CAMERA>
F95 C DATA10
F96 C DATA11
F97 C DATA12
F98 C DATA13
F99 C DATA14
F100 C DATA15
F101 C DATA16
F102 C DATA17
F103 Y DATA10
F104 Y DATA11
F105 Y DATA12
F106 Y DATA13
F107 Y DATA14
F108 Y DATA15
F109 Y DATA16
F110 Y DATA17
F111 INV1
F112 INH1
TO MAIN CN(E-21) <TO VIDEO2>
F115 REQR
F116 ACKR
F117 ACKP
F118 REQP
F119 DBR2
F120 DBR3
F121 DBR1
F122 DBR0
F123 DBP0
F124 DBP1
F125 DBP2
F126 DBP3
F127 INF
TO MAIN CN(C-17) <TO VIDEO2/CONTROL>
F34 ADM15
F33 ADM14
F32 ADM13
F31 ADM12
F30 ADM11
F29 ADM10
F28 ADM9
F27 ADM8
F26 ADM7
F25 ADM6
F24 ADM5
F23 ADM4
F22 ADM3
F21 ADM2
F20 ADM1
F19 ADM0
F38 AS
F36 XWEH
F37 XRE
F35 XWEL
CL3003
CL3012
CL3013
RL3021
RL3022
RL3023
RL3024
RL3025
R3008 0
R3012 0
R3002 1K
R3004 1K
R3034 47K
R3036 1K
R3041 10K
R3011 0
R3006 15K
R3007 10K
R3016 15K
R3017 10K
R3021 18K
R3022 10K
R3023 10K
R3024 10K
R3031 0
R3030 0
R3032 0
R3033 1M
X3001 H0J245500021
LB3002 J0JHC0000015
LB3001 J0JHC0000015
LB3003 J0JHC0000015
LB3004 J0JHC0000015
L3006 G1C100K00019
L3007 G1C100K00019
L3012 G1C100K00019
C3004 4V22
C3006 0.1
C3017 0.1
C3043 1
C3012 4.7
C3015 4.7
C3052 0.1
C3018 0.1
C3019 0.1
C3020 0.1
C3021 0.1
C3023 0.1
C3025 0.1
C3026 0.1
C3027 0.1
C3029 0.1
C3030 0.1
C3031 0.1
C3033 0.1
C3036 0.1
C3038 4V47
C3035 0.1
C3022 0.1
C3040 SP
C3042 SP
C3003 1
C3008 F3E0G1060002
C3009 0.1
C3051 1
C3010 0.1
C3041 0.1
C3054 0.01
C3053 1
C3001 F3E0G1060002
C3005 4.7
C3039 0.01
C3032 0.1
C3016 4V22
C3037 0.01
RL3034
RL3033
RL3035
CL3031
RL3014
IC3001
C1AB00001130
(DSP)
OSDVB OSDVG OSDVR PWMOUT1 ZPWMOUT2 ZPWMOUT1 EVFPOL LCDPOL IVCOAVSS FSLPFI IVCOAVD PLLDVSS PLLAVSS PLLAVDD PLLDVDD CAMHD CAMVD VDD2 VDDC ADIN(4) VSS ADIN(9) ADIN(8) ADIN(7) VDDC FCK2135 VSS ADIN(6) ADIN(5) FCK45 ADIN(3) ADIN(2) ADIN(1) ADIN(0) AVSS LCDBVBS LCDBOUT AVDD AVSS LCDREF LCDGVBS LCDGOUT AVDD AVSS LCDRVBS LCDROUT AVDD DVSS DVDD AVSS EVFBVBS EVFBOUT AVDD AVSS EVFREF EVFGVBS EVFGOUT AVDD AVSS EVFRVBS EVFROUT AVDD AVSS VREF VVBS VOUT AVDD DVSS DVDD AVSS CREF
OSDBLKA ODSBLKB VSS VDDC VDDS VBLK LCDHD CAM AFDR DTO CAM AFDR CLK AFDR CS INT CAM CG DTO CAM CG CLK CAM CG CS OSDHD OSDVD FSLPFO STILL ALCPWM VSS VDDC SIG ZDCCOMP ZCCCOMP ZBCCOMP ZACOMP F2C FCB FCA OSDCLK VDDC CDATAI(0)–CDATAI(7) YDATAI(0)–YDATAI(7) VDD2V VDDC VSS DBR(0) INV1 REQR DBR(2) DBR(3) INH1 ACKR ACKP REQP VDD2.5V DRM VSS DBR(1) DBP(0) DBP(1) DBP(2) VSS NC NC NC NC
CVRS COUT AVDD CLKSEL(0) CLKSEL(1) CLKSEL(2) YDATA2(7)–YDATA2(0) CDATA2(7)–CDATA2(0) VDDC MCLK241 MCLK240 VSS VDD2V INV2 DOLRCK BEND V1V2 INH2 VSS FSCLKIN VDDC CCDCLK0 CCDCLK1 VSS DIMCK DILRCK DIDAT AIDAT2 AIDAT1 DODAT CLK135 DOMCK PORTA SSP LCDCLK PORTD VDD2V CLK27B VDDC CLK27A VSS FRP DOBCK DIBCK XRST PORTC AFRP CLK24 XTRST VDD2.5V DRAM VSS TMS TCK TDI VDDC TDO VDD 2.5V
VDD2.5V DRAM VSS INF DRAM VSS DRAM VSS VDD1.5V VDD1.5V DBP(3) ADM(15)–ADM(12) VSS VDDC VDD2V ADM(11)–ADM(6) DRAM VSS DRAM VSS VDD1.5V ADM(5)–ADM(0) VSS AS XWEH XRE DRAM VSS DRAM VSS VDD1.5V XWEL PORTB PORT(5) PORT(4) PORT(3) DTCLK PORT(2) DTMB PORT(7) DVM PORT(9) VDDC VSS VDD2V TEST(5) TEST(4) TEST(3) VDD1.5V VDD1.5V DRAM VSS DRAM VSS TEST(2) TEST(1) TEST(0) PORT(8) PORT(6) DRAM VSS DRAM VSS VDD1.5V VDD1.5V PORT(1) DRAM VSS
A1–A16 B1–B13 C1–C20 D2 D17–D28 D33–D39 D41–D60 D65–D75 D93–D102 D107
PV-DV852
VIDEO 1 SCHEMATIC DIAGRAM
A B C D E F G
1 2 3 4 5 6 7 8 9 10 11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AN2903FJQ
(AUDIO/VIDEO DRIVER)
IC3004
C0FBZH000013
(AUDIO AD/DA)
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2SD1979
(MUTE)
Q3102
2SD1979
(MUTE)
Q3103
2SD1979
(MUTE)
QR3101
RN2103F
(AV IN Ⓗ:ON)
QR3102
B1GBBEMM0001
(AV IN Ⓗ:ON)
L3013
G1C100K00019
L3015
G1C100K00019
L3002
G1C100K00019
L3014
G1C100K00019
L3009
G1C100K00019
L3011
G1C100K00019
L3017
G1C100K00025
LB3006
J0JHC0000015
TO MAIN CN(G-21)
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CLK135 F113
TO MAIN CN(D-18)
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TO MAIN CN(C-21)
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LCD G OUT F140
LCD B OUT F141
EVF B OUT F136
EVF G OUT F137
EVF R OUT F138
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SD OUT R F133
SD OUT L F132
SD IN L F135
SD IN R F134
TO MAIN CN(F-17)
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TO MAIN CN(F-17)
<TO GYRO/EX INPUT>
TO MAIN CN(G-21)
<TO GYRO>
12
13
14
15
16
17
18
19
20
21
22

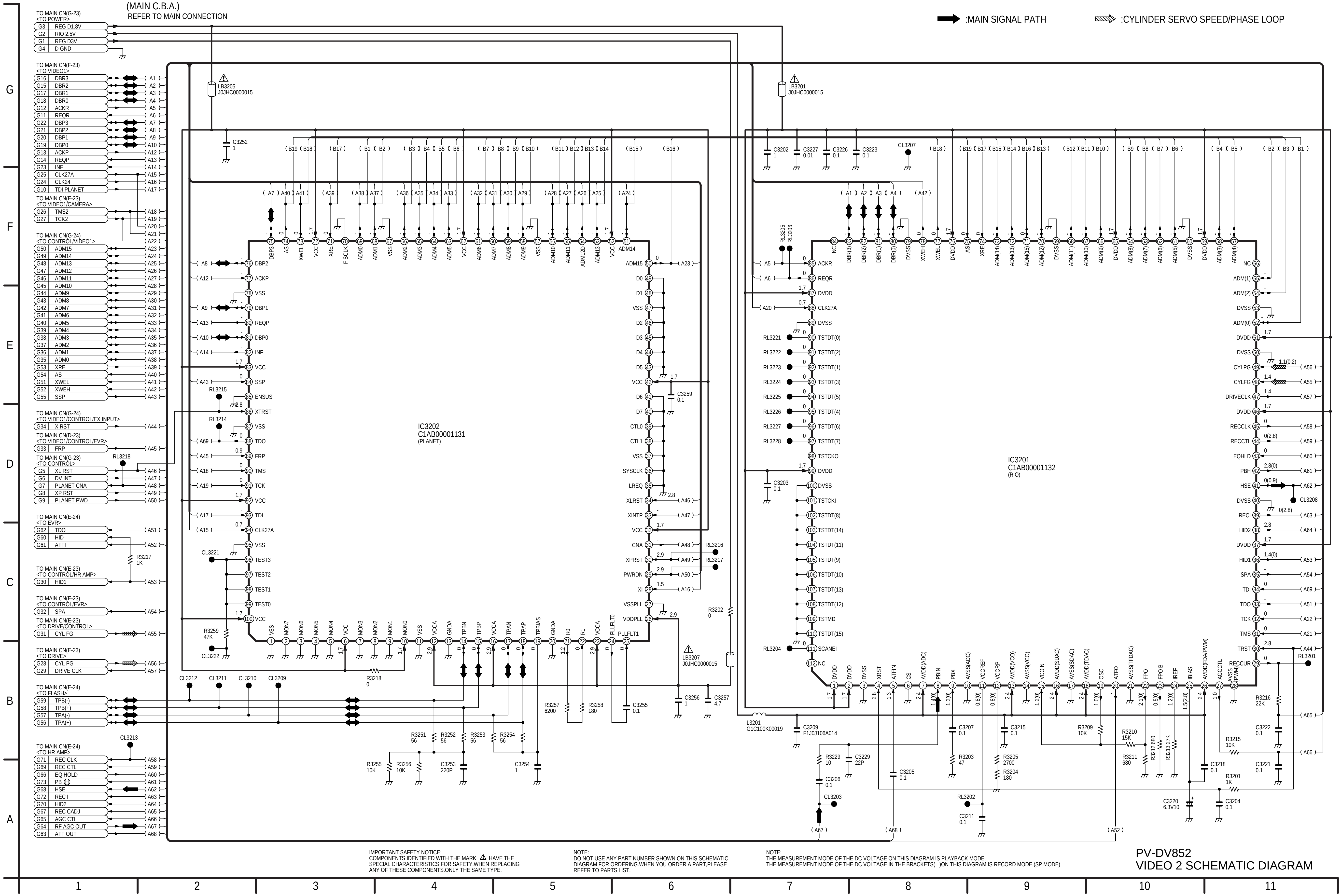
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC
DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE
REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS
DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE
BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852
VIDEO 1 SCHEMATIC DIAGRAM

PV-DV852 VIDEO 1 SCHEMATIC DIAGRAM

11.23. VIDEO 2 SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
:MAIN SIGNAL PATH
:CYLINDER SERVO SPEED/PHASE LOOP
TO MAIN CN(G-23) <TO POWER>
G3 REG D1.8V
G2 RIO 2.5V
G1 REG D3V
G4 D GND
TO MAIN CN(F-23) <TO VIDEO1>
G16 DBR3
G15 DBR2
G17 DBR1
G18 DBR0
G12 ACKR
G11 REQR
G22 DBP3
G21 DBP2
G20 DBP1
G19 DBP0
G13 ACKP
G14 REQP
G23 INF
G25 CLK27A
G24 CLK24
G10 TDI PLANET
TO MAIN CN(E-23) <TO VIDEO1/CAMERA>
G26 TMS2
G27 TCK2
TO MAIN CN(G-24) <TO CONTROL/VIDEO1>
G50 ADM15
G49 ADM14
G48 ADM13
G47 ADM12
G46 ADM11
G45 ADM10
G44 ADM9
G43 ADM8
G42 ADM7
G41 ADM6
G40 ADM5
G39 ADM4
G38 ADM3
G37 ADM2
G36 ADM1
G35 ADM0
G53 XRE
G54 AS
G51 XWEL
G52 XWEH
G55 SSP
TO MAIN CN(G-24) <TO VIDEO1/CONTROL/EX INPUT>
G34 X RST
TO MAIN CN(D-23) <TO VIDEO1/CONTROL/EVR>
G33 FRP
TO MAIN CN(G-23) <TO CONTROL>
G5 XL RST
G6 DV INT
G7 PLANET CNA
G8 XP RST
G9 PLANET PWD
TO MAIN CN(E-24) <TO EVR>
G62 TDO
G60 HID
G61 ATFI
R3217 1K
TO MAIN CN(E-23) <TO CONTROL/HR AMP>
G30 HID1
TO MAIN CN(E-23) <TO CONTROL/EVR>
G32 SPA
TO MAIN CN(E-23) <TO DRIVE/CONTROL>
G31 CYL FG
TO MAIN CN(E-23) <TO DRIVE>
G28 CYL PG
G29 DRIVE CLK
TO MAIN CN(E-24) <TO FLASH>
G59 TPB(-)
G58 TPB(+)
G57 TPA(-)
G56 TPA(+)
CL3213
TO MAIN CN(E-24) <TO HR AMP>
G71 REC CLK
G69 REC CTL
G66 EQ HOLD
G73 PB H
G68 HSE
G72 REC I
G70 HID2
G67 REC CADJ
G65 AGC CTL
G64 RF AGC OUT
G63 ATF OUT
LB3205 J0JHC0000015
LB3201 J0JHC0000015
LB3207 J0JHC0000015
C3252 1
IC3202 C1AB00001131 (PLANET)
IC3201 C1AB00001132 (RIO)
RL3215
RL3214
RL3218
RL3216
RL3217
R3202 0
CL3221
CL3222
R3259 47K
CL3212
CL3211
CL3210
CL3209
R3218 0
R3257 6200
R3258 180
C3255 0.1
C3256 1
C3257 4.7
R3251 56
R3252 56
R3253 56
R3254 56
R3255 10K
R3256 10K
C3253 220P
C3254 1
C3259 0.1
C3202 1
C3227 0.01
C3226 0.1
C3223 0.1
CL3207
RL3205
RL3206
RL3221
RL3222
RL3223
RL3224
RL3225
RL3226
RL3227
RL3228
C3203 0.1
RL3204
L3201 G1C100K00019
C3209 F1J0J106A014
R3229 10
C3229 22P
C3206 0.1
CL3203
C3205 0.1
C3207 0.1
R3203 47
C3215 0.1
R3205 2700
R3204 180
RL3202
C3211 0.1
R3209 10K
R3210 15K
R3211 680
R3212 680
R3213 27K
C3218 0.1
C3220 6.3V10
R3215 10K
R3201 1K
C3204 0.1
R3216 22K
C3222 0.1
C3221 0.1
CL3208
RL3201
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
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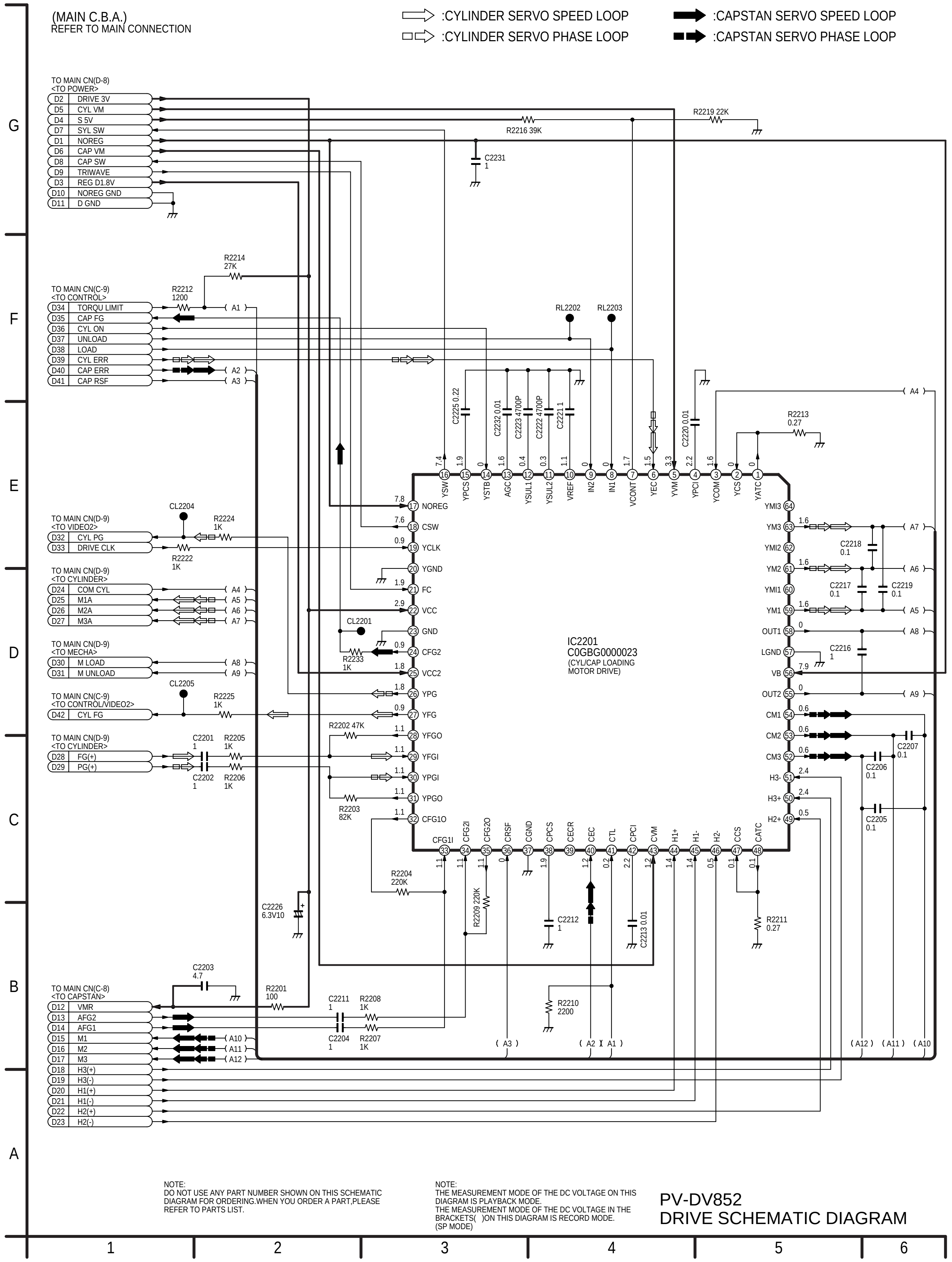
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.(SP MODE)

PV-DV852
VIDEO 2 SCHEMATIC DIAGRAM

11.24. DRIVE SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
TO MAIN CN(D-8) <TO POWER>
D2 DRIVE 3V
D5 CYL VM
D4 S 5V
D7 SYL SW
D1 NOREG
D6 CAP VM
D8 CAP SW
D9 TRIWAVE
D3 REG D1.8V
D10 NOREG GND
D11 D GND
R2216 39K
R2219 22K
C2231 1
TO MAIN CN(C-9) <TO CONTROL>
D34 TORQU LIMIT
D35 CAP FG
D36 CYL ON
D37 UNLOAD
D38 LOAD
D39 CYL ERR
D40 CAP ERR
D41 CAP RSF
R2212 1200
R2214 27K
RL2202
RL2203
C2225 0.22
C2232 0.01
C2223 4700P
C2222 4700P
C2221 1
C2220 0.01
R2213 0.27
TO MAIN CN(D-9) <TO VIDEO2>
D32 CYL PG
D33 DRIVE CLK
CL2204
R2224 1K
R2222 1K
TO MAIN CN(D-9) <TO CYLINDER>
D24 COM CYL
D25 M1A
D26 M2A
D27 M3A
TO MAIN CN(D-9) <TO MECHA>
D30 M LOAD
D31 M UNLOAD
CL2201
R2233 1K
TO MAIN CN(C-9) <TO CONTROL/VIDEO2>
D42 CYL FG
CL2205
R2225 1K
TO MAIN CN(D-9) <TO CYLINDER>
D28 FG(+)
D29 PG(+)
C2201 1
C2202 1
R2205 1K
R2206 1K
R2202 47K
R2203 82K
IC2201
C0GBG0000023
(CYL/CAP LOADING MOTOR DRIVE)
NOREG CSW YCLK YGND FC VCC GND CFG2 VCC2 YPG YFG YFGO YFGI YFGI YPGO CFG1O
YSW YPCS YSTB AGC YSUL1 YSUL2 VREF IN2 IN1 VCONT YEC YVM YPCI YCOM YCS YATC
YMI3 YM3 YMI2 YM2 YMI1 YM1 OUT1 LGND VB OUT2 CM1 CM2 CM3 H3- H3+ H2+
CFG1I CFG2I CFG2O CRSF CGND CPCS CECR CEC CTL CPCI CVM H1+ H1- H2- CCS CATC
C2218 0.1
C2217 0.1
C2219 0.1
C2216 1
C2206 0.1
C2207 0.1
C2205 0.1
R2204 220K
R2209 220K
C2212 1
C2213 0.01
R2211 0.27
C2226 6.3V10
R2210 2200
TO MAIN CN(C-8) <TO CAPSTAN>
D12 VMR
D13 AFG2
D14 AFG1
D15 M1
D16 M2
D17 M3
D18 H3(+)
D19 H3(-)
D20 H1(+)
D21 H1(-)
D22 H2(+)
D23 H2(-)
C2203 4.7
R2201 100
C2211 1
C2204 1
R2208 1K
R2207 1K
G F E D C B A
1 2 3 4 5 6

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
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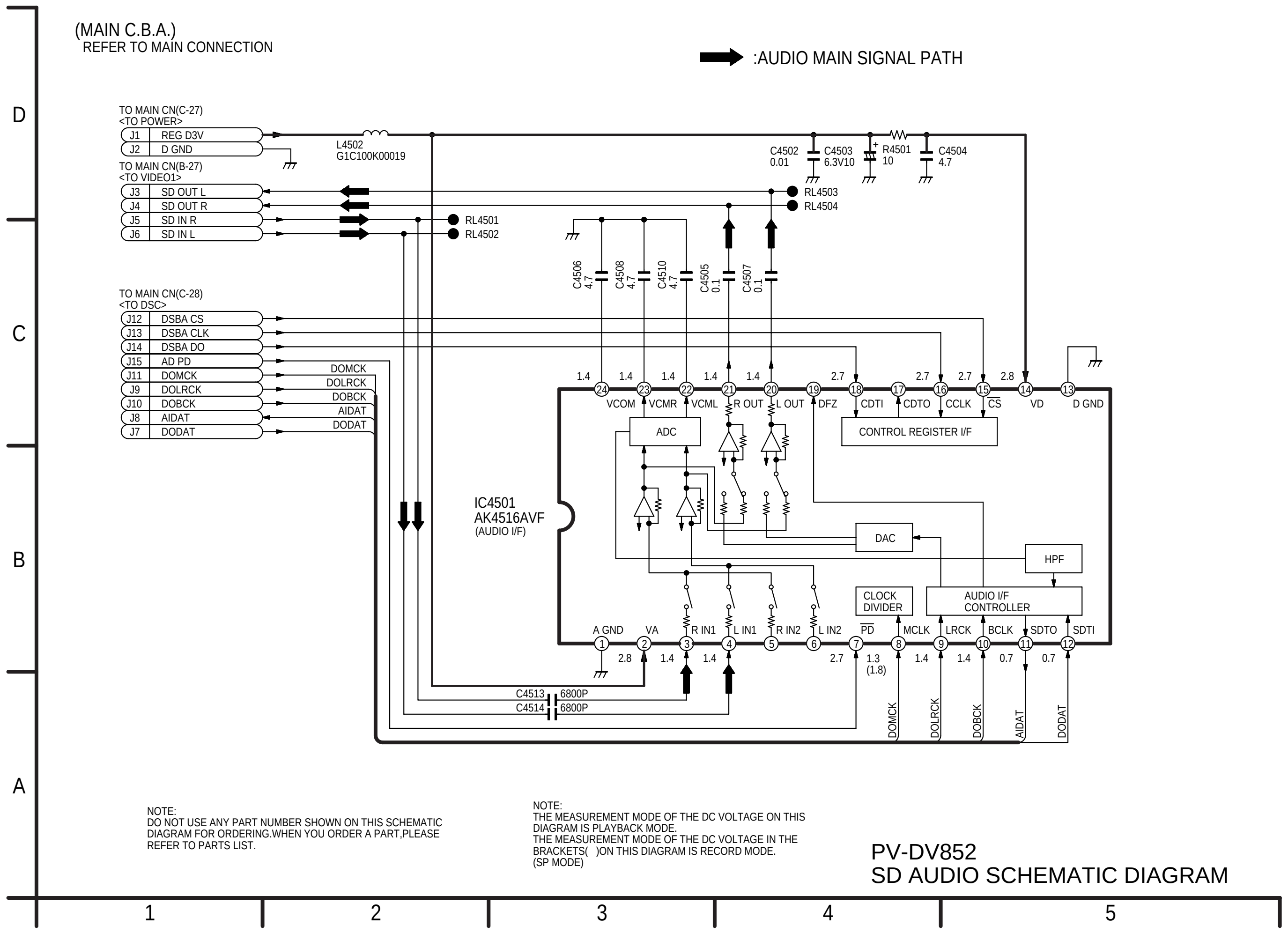
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852
DRIVE SCHEMATIC DIAGRAM

11.25. SD AUDIO SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
:AUDIO MAIN SIGNAL PATH
TO MAIN CN(C-27) <TO POWER>
J1 REG D3V
J2 D GND
L4502 G1C100K00019
C4502 0.01
C4503 6.3V10
R4501 10
C4504 4.7
TO MAIN CN(B-27) <TO VIDEO1>
J3 SD OUT L
J4 SD OUT R
J5 SD IN R
J6 SD IN L
RL4501
RL4502
RL4503
RL4504
C4506 4.7
C4508 4.7
C4510 4.7
C4505 0.1
C4507 0.1
TO MAIN CN(C-28) <TO DSC>
J12 DSBA CS
J13 DSBA CLK
J14 DSBA DO
J15 AD PD
J11 DOMCK
J9 DOLRCK
J10 DOBCK
J8 AIDAT
J7 DODAT
IC4501
AK4516AVF
(AUDIO I/F)
VCOM VCMR VCML R OUT L OUT DFZ CDTI CDTO CCLK CS VD D GND
ADC
CONTROL REGISTER I/F
DAC
HPF
CLOCK DIVIDER
AUDIO I/F CONTROLLER
A GND VA R IN1 L IN1 R IN2 L IN2 PD MCLK LRCK BCLK SDTO SDTI
C4513 6800P
C4514 6800P
DOMCK DOLRCK DOBCK AIDAT DODAT
D C B A
1 2 3 4 5

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
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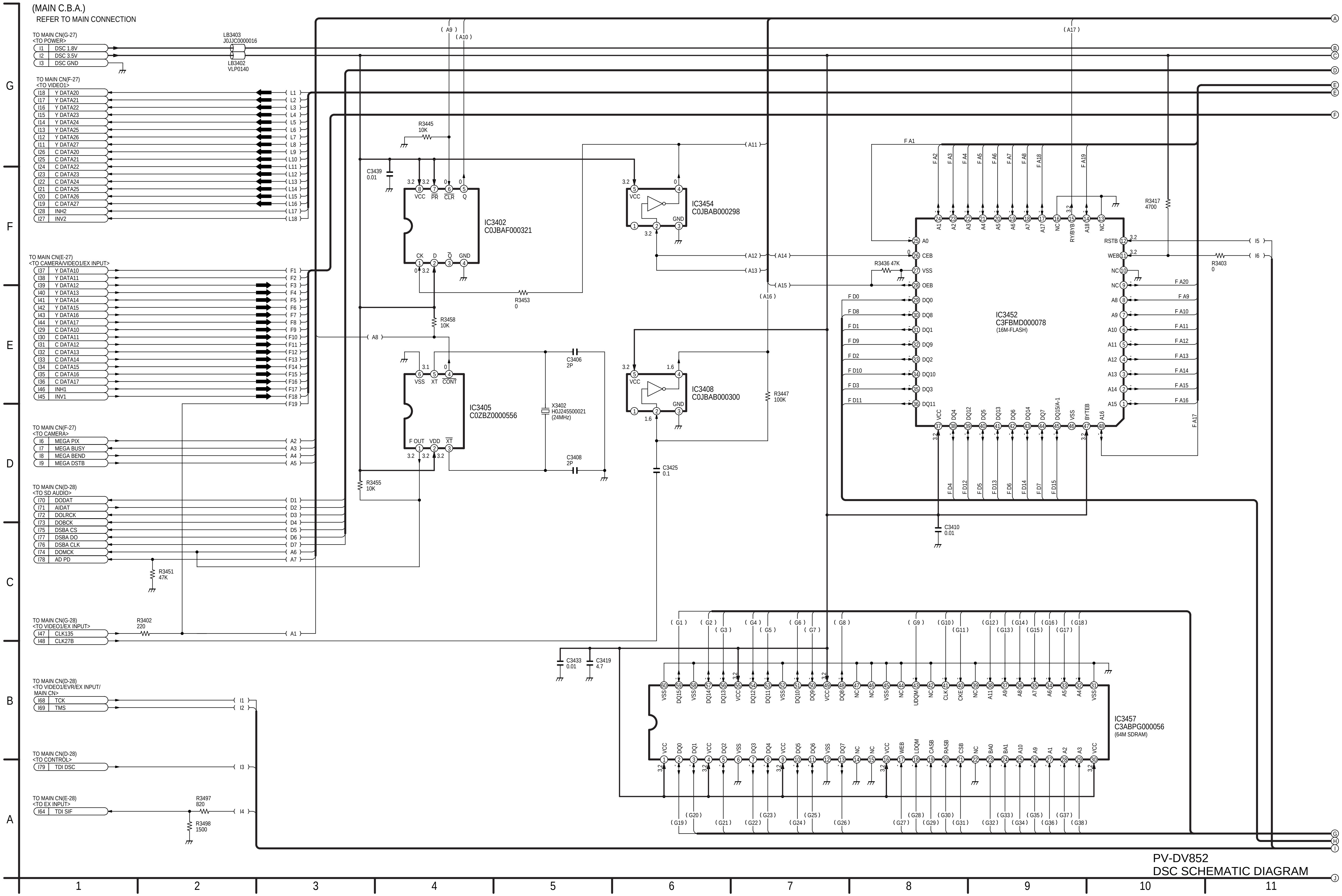
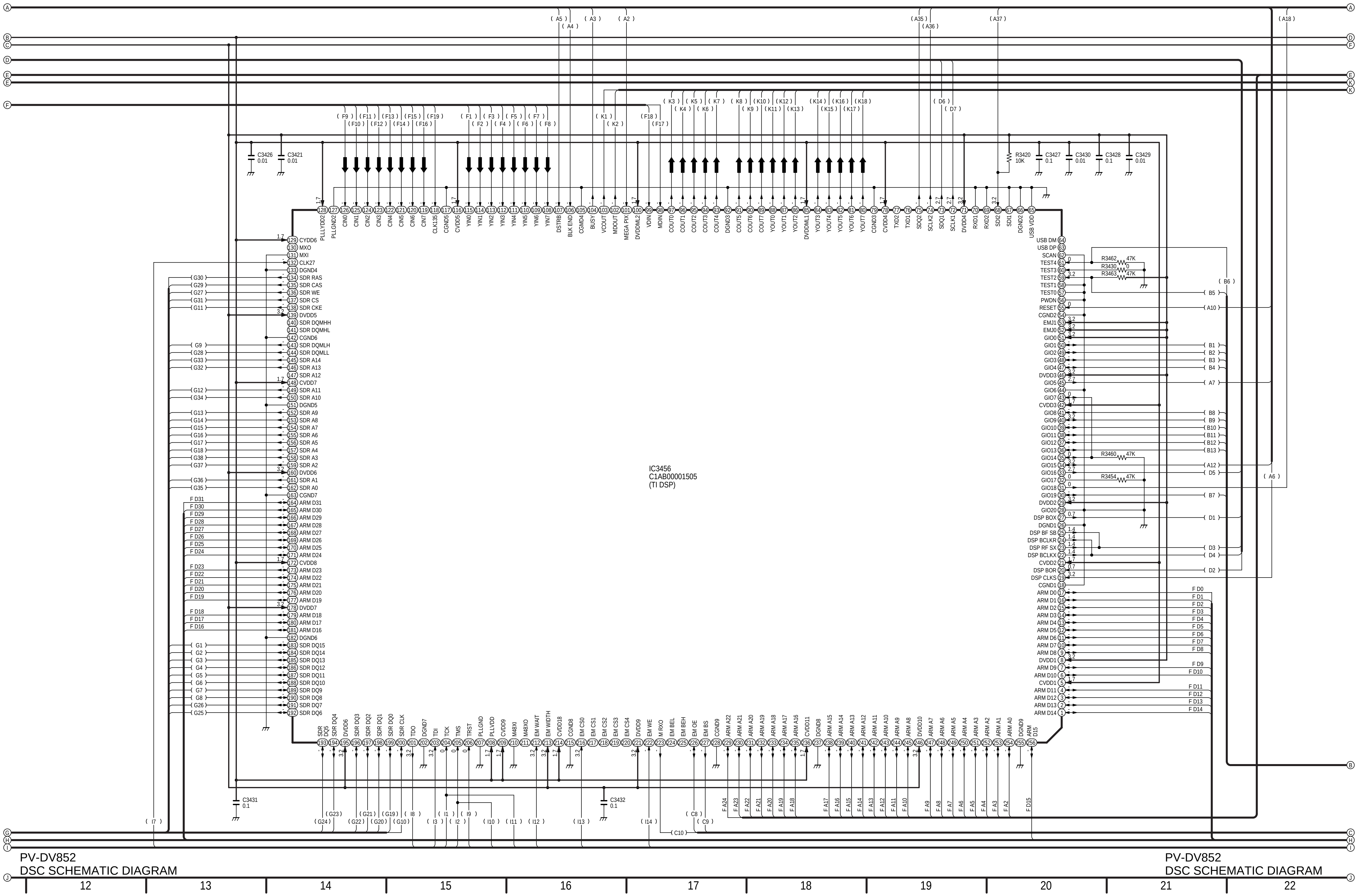
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852
SD AUDIO SCHEMATIC DIAGRAM

11.26. DSC SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
TO MAIN CN(G-27) <TO POWER>
I1 DSC 1.8V
I2 DSC 3.5V
I3 DSC GND
LB3403 J0JJC0000016
LB3402 VLP0140
TO MAIN CN(F-27) <TO VIDEO1>
I18 Y DATA20
I17 Y DATA21
I16 Y DATA22
I15 Y DATA23
I14 Y DATA24
I13 Y DATA25
I12 Y DATA26
I11 Y DATA27
I26 C DATA20
I25 C DATA21
I24 C DATA22
I23 C DATA23
I22 C DATA24
I21 C DATA25
I20 C DATA26
I19 C DATA27
I28 INH2
I27 INV2
TO MAIN CN(E-27) <TO CAMERA/VIDEO1/EX INPUT>
I37 Y DATA10
I38 Y DATA11
I39 Y DATA12
I40 Y DATA13
I41 Y DATA14
I42 Y DATA15
I43 Y DATA16
I44 Y DATA17
I29 C DATA10
I30 C DATA11
I31 C DATA12
I32 C DATA13
I33 C DATA14
I34 C DATA15
I35 C DATA16
I36 C DATA17
I46 INH1
I45 INV1
TO MAIN CN(F-27) <TO CAMERA>
I6 MEGA PIX
I7 MEGA BUSY
I8 MEGA BEND
I9 MEGA DSTB
TO MAIN CN(D-28) <TO SD AUDIO>
I70 DODAT
I71 AIDAT
I72 DOLRCK
I73 DOBCK
I75 DSBA CS
I77 DSBA DO
I76 DSBA CLK
I74 DOMCK
I78 AD PD
R3451 47K
TO MAIN CN(G-28) <TO VIDEO1/EX INPUT>
I47 CLK135
I48 CLK27B
R3402 220
TO MAIN CN(D-28) <TO VIDEO1/EVR/EX INPUT/ MAIN CN>
I68 TCK
I69 TMS
TO MAIN CN(D-28) <TO CONTROL>
I79 TDI DSC
TO MAIN CN(E-28) <TO EX INPUT>
I64 TDI SIF
R3497 820
R3498 1500
R3445 10K
C3439 0.01
IC3402 C0JBAF000321
VCC PR CLR Q CK D Q GND
R3453 0
R3458 10K
IC3454 C0JBAB000298
IC3405 C0ZBZ0000556
VSS XT CONT F OUT VDD XT
C3406 2P
X3402 H0J245500021 (24MHz)
C3408 2P
R3455 10K
IC3408 C0JBAB000300
R3447 100K
C3425 0.1
C3433 0.01
C3419 4.7
IC3452 C3FBMD000078 (16M-FLASH)
R3436 47K
R3417 4700
R3403 0
C3410 0.01
A0 CEB VSS OEB DQ0 DQ8 DQ1 DQ9 DQ2 DQ10 DQ3 DQ11
RSTB WEB NC NC A8 A9 A10 A11 A12 A13 A14 A15
VCC DQ4 DQ12 DQ5 DQ13 DQ6 DQ14 DQ7 DQ15/A-1 VSS BYTEB A16
A1 A2 A3 A4 A5 A6 A7 A17 NC RY/BYB A18 NC
F A1 F A2 F A3 F A4 F A5 F A6 F A7 F A8 F A18 F A19
F D0 F D8 F D1 F D9 F D2 F D10 F D3 F D11
F A20 F A9 F A10 F A11 F A12 F A13 F A14 F A15 F A16 F A17
F D4 F D12 F D5 F D13 F D6 F D14 F D7 F D15
IC3457 C3ABPG000056 (64M SDRAM)
VSS DQ15 VSS DQ14 DQ13 VCC DQ12 DQ11 VSS DQ10 DQ9 VCC DQ8 NC VSS NC UDQM NC CLK CKE NC A11 A9 A8 A7 A6 A5 A4 VSS
VCC DQ0 DQ1 VCC DQ2 VSS DQ3 DQ4 VCC DQ5 DQ6 VSS DQ7 NC NC VCC WEB LDQM CASB RASB CSB NC BA0 BA1 A10 A9 A1 A2 A3 VCC
G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 G12 G13 G14 G15 G16 G17 G18
G19 G20 G21 G22 G23 G24 G25 G26 G27 G28 G29 G30 G31 G32 G33 G34 G35 G36 G37 G38
A B C D E E F G H I J
1 2 3 4 5 6 7 8 9 10 11
G F E D C B A

PV-DV852
DSC SCHEMATIC DIAGRAM


IC3456
C1AB00001505
(TI DSP)
C3426 0.01
C3421 0.01
C3427 0.1
C3430 0.01
C3428 0.1
C3429 0.01
R3420 10K
R3462 47K
R3430 0
R3463 47K
R3460 47K
R3454 47K
C3431 0.1
C3432 0.1
A
B
C
D
E
F
G
H
I
J
K
12
13
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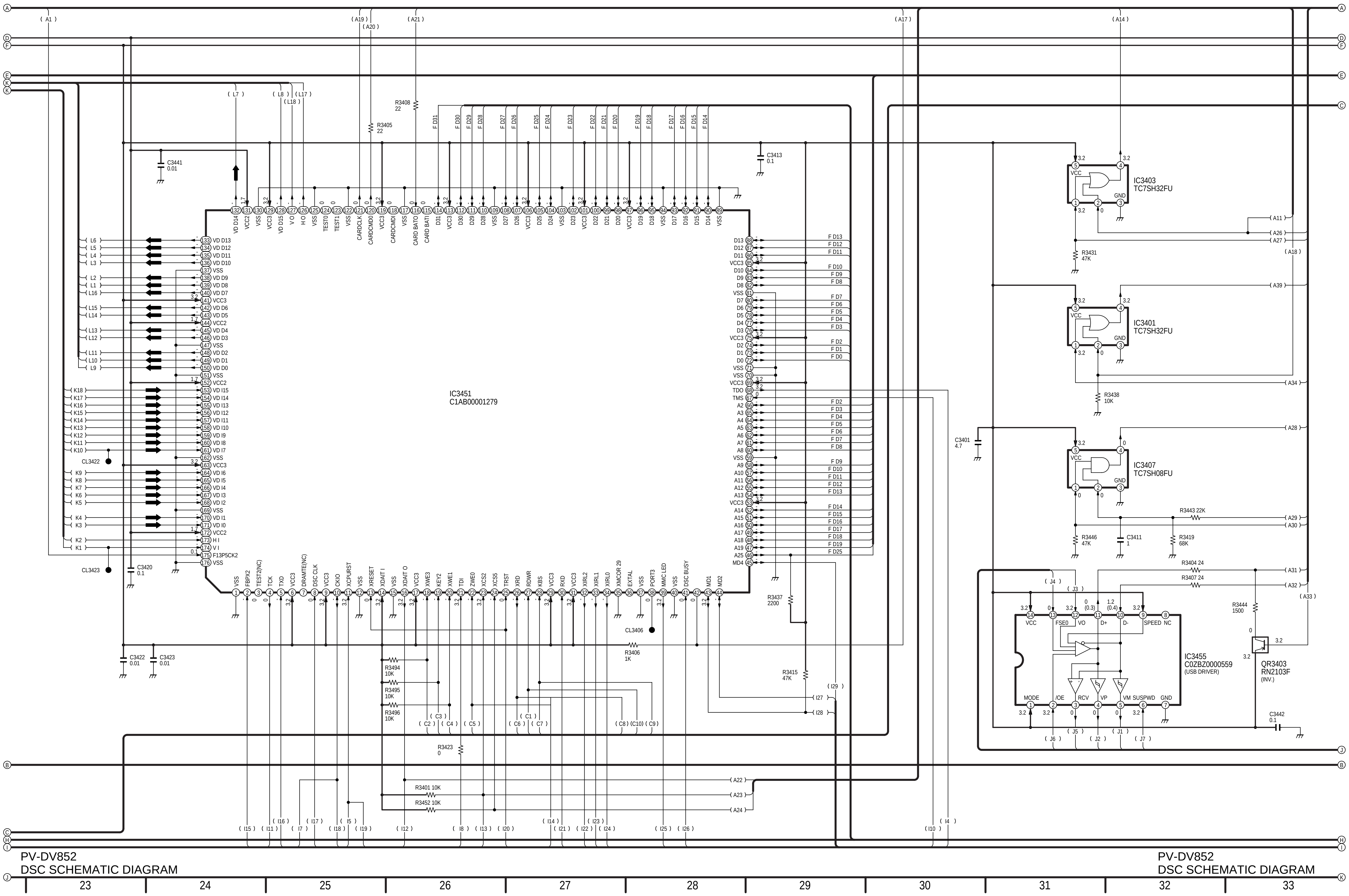
22

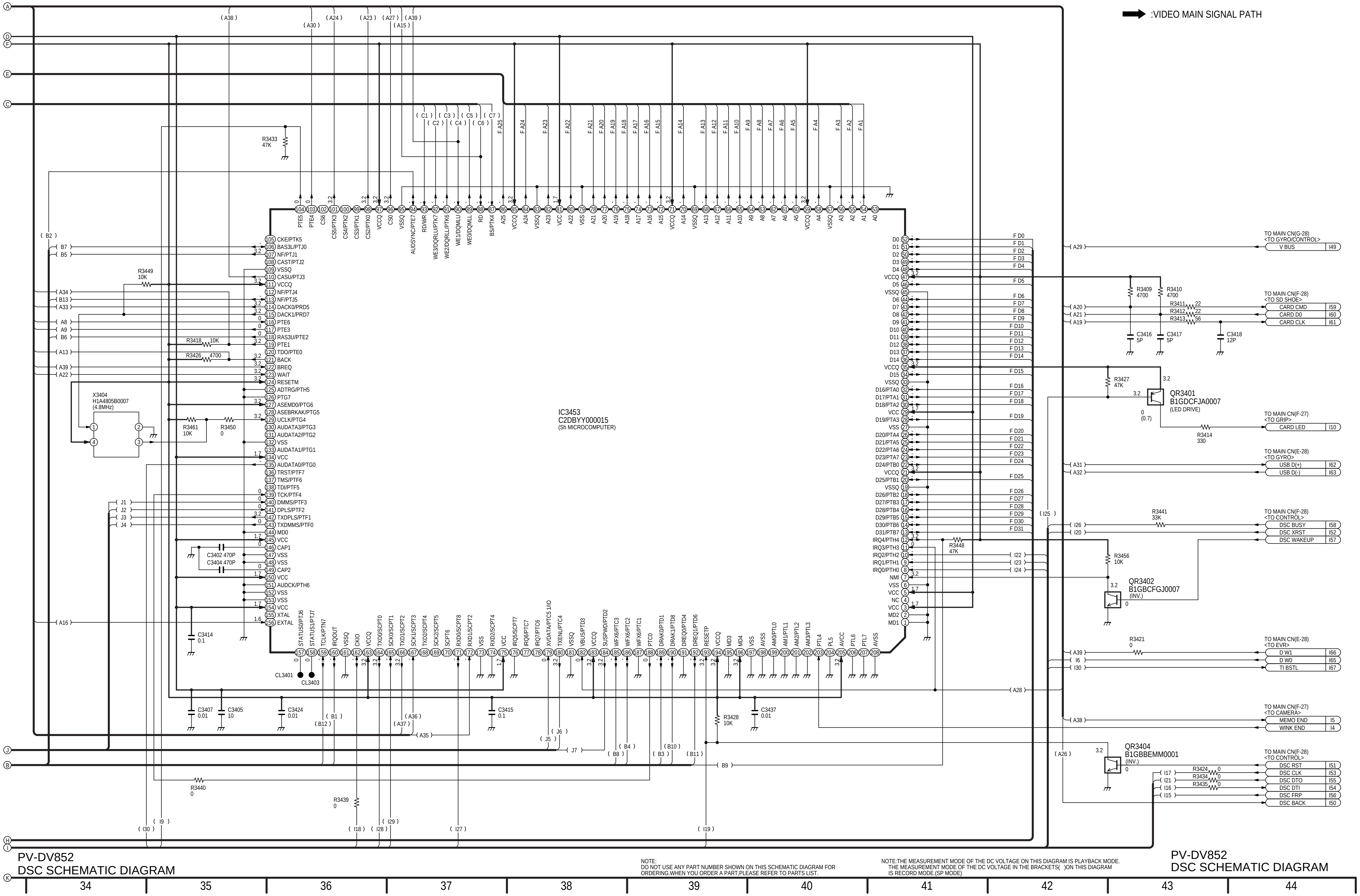
PV-DV852
DSC SCHEMATIC DIAGRAM

PV-DV852
DSC SCHEMATIC DIAGRAM


IC3451
C1AB00001279
IC3403
TC7SH32FU
IC3401
TC7SH32FU
IC3407
TC7SH08FU
IC3455
C0ZBZ0000559
(USB DRIVER)
QR3403
RN2103F
(INV.)
C3441 0.01
C3413 0.1
C3401 4.7
C3411 1
C3420 0.1
C3422 0.01
C3423 0.01
C3442 0.1
CL3422
CL3423
CL3406
R3408 22
R3405 22
R3431 47K
R3438 10K
R3443 22K
R3446 47K
R3419 68K
R3404 24
R3407 24
R3444 1500
R3437 2200
R3415 47K
R3406 1K
R3494 10K
R3495 10K
R3496 10K
R3423 0
R3401 10K
R3452 10K
VCC
GND
MODE
/OE
RCV
VP
VM
SUSPWD
FSE0
VO
D+
D-
SPEED
NC
23
24
25
26
27
28
29
30
31
32
33

PV-DV852
DSC SCHEMATIC DIAGRAM

PV-DV852
DSC SCHEMATIC DIAGRAM


:VIDEO MAIN SIGNAL PATH
IC3453
C2DBYY000015
(Sh MICROCOMPUTER)
X3404
H1A4805B0007
(4.8MHz)
QR3401
B1GDCFJA0007
(LED DRIVE)
QR3402
B1GBCFGJ0007
(INV.)
QR3404
B1GBBEMM0001
(INV.)
R3433 47K
R3449 10K
R3418 10K
R3426 4700
R3461 10K
R3450 0
R3409 4700
R3410 4700
R3411 22
R3412 22
R3413 56
C3416 5P
C3417 5P
C3418 12P
R3427 47K
R3414 330
R3441 33K
R3448 47K
R3456 10K
R3421 0
R3424 0
R3434 0
R3435 0
R3428 10K
R3440 0
R3439 0
C3402 470P
C3404 470P
C3414 0.1
C3407 0.01
C3405 10
C3424 0.01
C3415 0.1
C3437 0.01
CL3401
CL3403
TO MAIN CN(G-28)
<TO GYRO/CONTROL>
V BUS
TO MAIN CN(F-28)
<TO SD SHOE>
CARD CMD
CARD D0
CARD CLK
TO MAIN CN(F-27)
<TO GRIP>
CARD LED
TO MAIN CN(E-28)
<TO GYRO>
USB D(+)
USB D(-)
TO MAIN CN(F-28)
<TO CONTROL>
DSC BUSY
DSC XRST
DSC WAKEUP
TO MAIN CN(E-28)
<TO EVR>
D W1
D W0
TI BSTL
TO MAIN CN(F-27)
<TO CAMERA>
MEMO END
WINK END
TO MAIN CN(F-28)
<TO CONTROL>
DSC RST
DSC CLK
DSC DTO
DSC DTI
DSC FRP
DSC BACK
A
D
F
E
C
J
B
H
I
K
34
35
36
37
38
39
40
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PV-DV852
DSC SCHEMATIC DIAGRAM

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.(SP MODE)

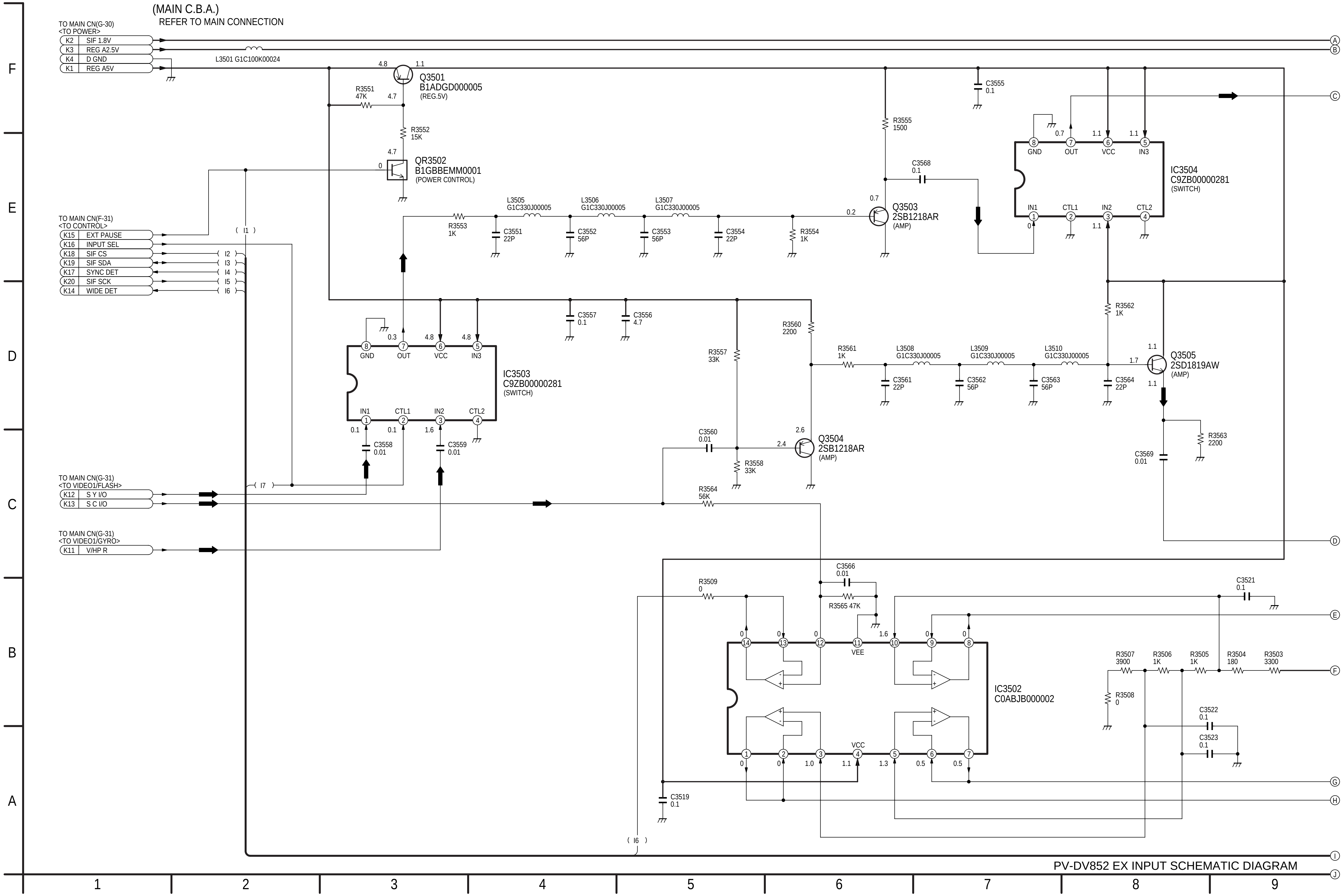
PV-DV852
DSC SCHEMATIC DIAGRAM

11.26.1. DSC I/O TABLE

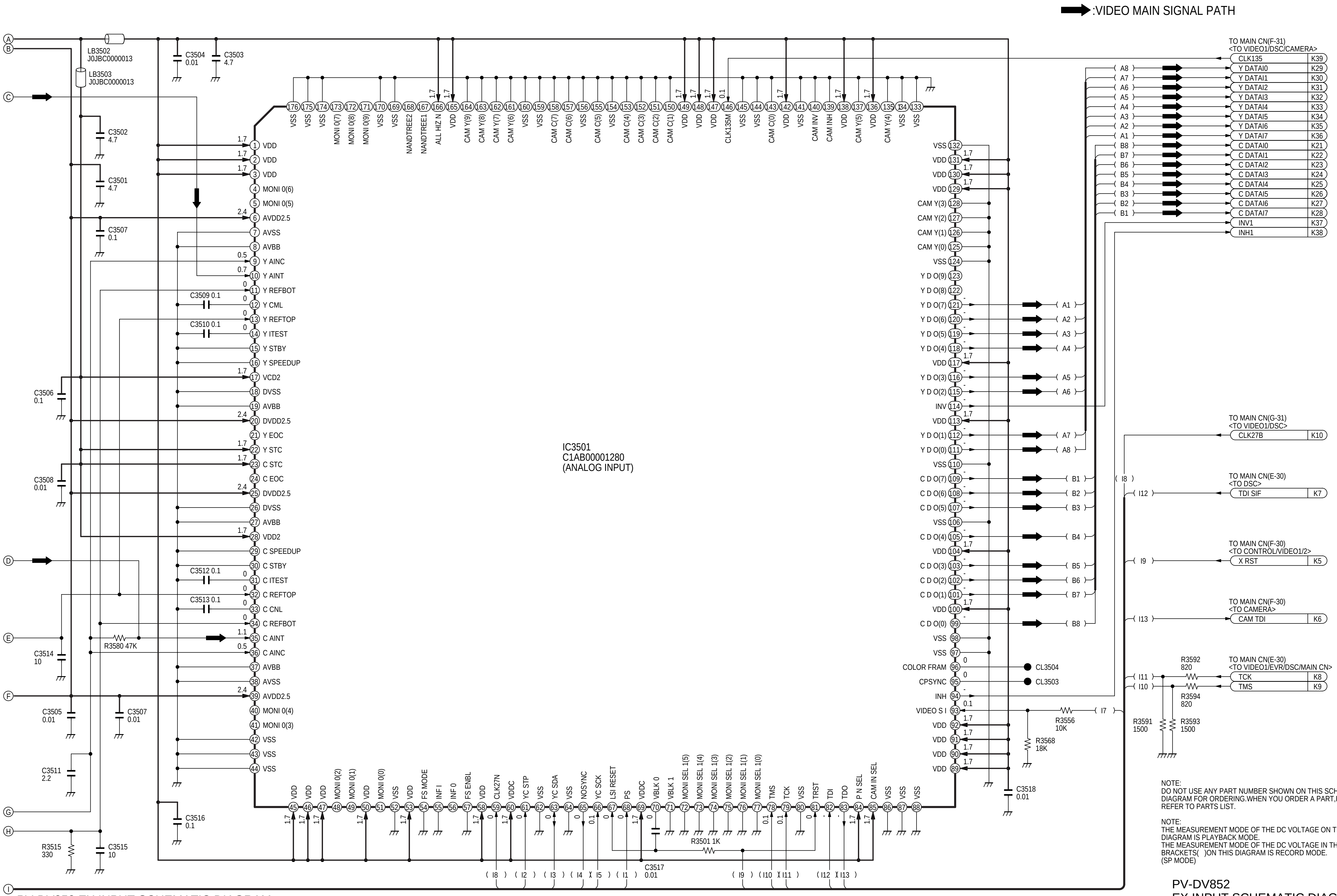
IC3453: DSC MICROCOMPUTER

Pin No.	Signal Name	I/O	Explanation
1	MD1	–	–
2	MD2	–	–
3	VCC	I	Voltage
4	NC	–	–
5	VCC	I	Voltage
6	VSS	–	GND
7	NMI	I	Power Save Cancel
8	IRQ0/PTH(0)	I	FRP/Card Squeeze
9	IRQ1/PTH(1)	I	FRP/Card Squeeze
10	IRQ2/PTH(2)	I	FRP/Card Squeeze
11	IRQ3/PTH(3)	I	USB Power Detect
12	IRQ4/PTH(4)	I/O	Data Bus
13	D31/PTB(7)	I/O	Data Bus
14	D30/PTB(6)	I/O	Data Bus
15	D29/PTB(5)	I/O	Data Bus
16	D28/PTB(4)	I/O	Data Bus
17	D27/PTB(3)	I/O	Data Bus
18	D26/PTB(2)	I/O	Data Bus
19	VSSQ	–	GND
20	D25/PTB(1)	I/O	Data Bus
21	VCCQ	I	Voltage
22	D24/PTB(0)	I/O	Data Bus
23	D23/PTA(7)	I/O	Data Bus
24	D22/PTA(6)	I/O	Data Bus
25	D21/PTA(5)	I/O	Data Bus
26	D20/PTA(4)	I/O	Data Bus
27	VSS	–	GND
28	D19/PTA(3)	I/O	Data Bus
29	VCC	I	Voltage
30	D18/PTA(2)	I/O	Data Bus
31	D17/PTA(1)	I/O	Data Bus
32	D16/PTA(0)	I/O	Data Bus
33	VSSQ	–	GND
34	D15	I/O	Data Bus
35	VCCQ	I	Voltage
36	D14	I/O	Data Bus
37	D13	I/O	Data Bus
38	D12	I/O	Data Bus
39	D11	I/O	Data Bus
40	D10	I/O	Data Bus
41	D9	I/O	Data Bus
42	D8	I/O	Data Bus
43	D7	I/O	Data Bus
44	D6	I/O	Data Bus
45	VSSQ	–	GND
46	D5	I/O	Data Bus
47	VCCQ	I	Voltage
48	D4	I/O	Data Bus
49	D3	I/O	Data Bus
50	D2	I/O	Data Bus
51	D1	I/O	Data Bus
52	D0	I/O	Data Bus
53	A0	–	–
54	A1	O	Address Bus
55	A2	O	Address Bus
56	A3	O	Address Bus
57	VSSQ	–	GND
58	A4	O	Address Bus
59	VCCQ	I	Voltage
60	A5	O	Address Bus
61	A6	O	Address Bus
62	A7	O	Address Bus
63	A8	O	Address Bus
64	A9	O	Address Bus
65	A10	O	Address Bus
66	A11	O	Address Bus
67	A12	O	Address Bus
68	A13	O	Address Bus
69	VSSQ	–	GND
70	A14	O	Address Bus
71	VCCQ	I	Voltage
72	A15	O	Address Bus
73	A16	O	Address Bus
74	A17	O	Address Bus
75	A18	O	Address Bus
76	A19	O	Address Bus
77	A20	O	Address Bus
78	A21	O	Address Bus
79	VSS	–	GND
80	A22	O	Address Bus
81	VCC	I	Voltage
82	A23	O	Address Bus
83	VSSQ	–	GND
84	A24	O	Address Bus
85	VCCQ	I	Voltage
86	A25	O	Address Bus
87	BS/PTK(4)	I	Bus Cycle Start
88	RD	O	Read Strobe
89	WE0/DQMLL	O	Write Enable (D7-D0 Select)
90	WE1/DQMLU	O	Write Enable (D15-D8 Select)
91	WE2/DQMUL/PTK(6)	O	Write Enable (D23-D16 Select)
92	WE3/DQMLU/PTK(7)	O	Write Enable (D31-D24 Select)
93	RD/WR	O	Read/Write
94	AUDSYNC/PTE(7)	I/O	Data Bus
95	VSSQ	–	GND
96	CS0	O	Frash Rom Chip Select
97	VCCQ	I	Voltage
98	CS2/PTK(0)	O	Work Ram Chip Select
99	CS3/PTK(1)	–	–
100	CS4/PTK(2)	–	–
101	CS5/PTK(3)	O	Card IF Control Chip Select
102	CS6	–	–
103	PTE(4)	O	V Bus Detect
104	PTE(5)	O	Test Reset
105	CKE/PTK(5)	–	–
106	BAS3L/PTJ(0)	I/O	Data Bus
107	NF/PTJ(1)	O	Test Signal
108	CAST/PTJ(2)	–	–
109	VSSQ	–	GND
110	CASU/PTJ(3)	O	Memo End
111	VCCQ	I	Voltage
112	NF/PTJ(4)	–	–
113	NF/PTJ(5)	I/O	Data Bus
114	DACK0/PRD(5)	O	USB Transistor Control
115	DACK1/PRD(7)	O	48MHz Control ON/OFF
116	PTE(6)	I	–
117	PTE(3)	O	–
118	RAS3U/PTJ(2)	O	Test Signal
119	PTE(1)	O	–
120	TDO/PTE(0)	–	–
121	BACK	I	BACK
122	BREQ	I	BREQ
123	WAIT	I	WAIT
124	RESETM	I	Voltage
125	ADTRG/PTH(5)	–	–
126	PTG(7)	–	–
127	ASEMD0/PTG(6)	I	Voltage
128	ASEBRKAK/PTG(5)	–	–
129	UCLK/PTG(4)	I	48MHz In
130	AUDATA(3)/PTG(3)	–	–
131	AUDATA(2)/PTG(2)	–	–
132	VSS	–	GND
133	AUDATA(1)/PTG(1)	–	–
134	VCC	I	Voltage
135	AUDATA(0)/PTG(0)	O	Test Signal
136	TRST/PTF(7)	–	–
137	TMS/PTF(6)	–	–
138	TDI/PTF(5)	–	–
139	TCK/PTF(4)	I	Standby Mode Control
140	DMMS/PTF(3)	I	USB Receiver (D-) In
141	DPLS/PTF(2)	I	USB Receiver (D+) In
142	TXDPLS/PTF(1)	O	USB (D+) Out
143	TXDMNS/PTF(0)	O	USB (D-) Out
144	MD0	–	–
145	VCC	I	Voltage
146	CAP1	–	–
147	VSS	–	GND
148	VSS	–	GND
149	CAP2	–	–
150	VCC	I	Voltage
151	AUDCK/PTH(6)	–	–
152	VSS	–	GND
153	VSS	–	GND
154	VCC	I	Voltage
155	XTAL	–	–
156	EXTAL	I	Ex Clock (27MHz)
157	STATUS0/PTJ(6)	–	–
158	STATUS1/PTJ(7)	–	–
159	TCLK/PTH(7)	I/O	Data Bus
160	IRQOUT	I/O	Data Bus
161	VSSQ	–	GND
162	CKIO	I/O	System Clock (27MHz)
163	VCCQ	I	Voltage
164	TXD0/SCPT(0)	I/O	Serial Data (Control Microcomputer)
165	SCK0/SCPT(1)	I/O	Serial Clock (Control Microcomputer)
166	TXD1/SCPT(2)	O	Serial Data
167	SCK1/SCPT(3)	I	Serial Clock
168	TXD2/SCPT(4)	–	–
169	SCK2/SCPT(5)	–	–
170	SCPT(6)	–	–
171	RXD0/SCPT(8)	I/O	Serial Data (Control Microcomputer)
172	RXD1/SCPT(2)	I	Serial Data
173	VSS	–	GND
174	RXD2/SCPT(4)	–	–
175	VCC	I	Voltage
176	IRQ5/SCPT(7)	–	–
177	IRQ6/PTC(7)	–	–
178	IRQ7/PTC(6)	–	–
179	XVDATA/PTC(5)	I	USB Receive Signal In
180	TXENL/PTC(4)	O	USB Output Enable
181	VSSQ	–	GND
182	VBUS/PTD(3)	I	USB Power Detect
183	VCCQ	I	Voltage
184	SUSPWD/PTD(2)	O	USB Suspend
185	WFX6/PTC(3)	I/O	Data Bus
186	WFX6/PTC(2)	I/O	Data Bus
187	WFX6/PTC(1)	–	–
188	PTC(0)	O	Standby Control
189	DRAK0/PTD(1)	I/O	Data Bus
190	DRAK1/PTD(8)	I/O	Data Bus
191	DREQ0/PTD(4)	–	–
192	DREQ1/PTD(6)	I/O	Data Bus
193	RESET P	I	Power ON Reset
194	VCCQ	I	Voltage
195	MD3	–	–
196	MD4	I	Voltage
197	VSS	–	GND
198	AVSS	–	GND
199	AM(0)/PTL(0)	–	–
200	AM(1)/PTL(1)	–	–
201	AM(2)/PTL(2)	–	–
202	AM(3)/PTL(3)	–	–
203	PTL(4)	I	Wink End
204	PTL(5)	–	–
205	AVCC	I	Voltage
206	PTL(6)	–	–
207	PTL(7)	–	–
208	AVSS	–	GND

11.27. EX INPUT SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
TO MAIN CN(G-30)
<TO POWER>
K2 SIF 1.8V
K3 REG A2.5V
K4 D GND
K1 REG A5V
L3501 G1C100K00024
Q3501
B1ADGD000005
(REG.5V)
R3551
47K
R3552
15K
QR3502
B1GBBEMM0001
(POWER C0NTROL)
TO MAIN CN(F-31)
<TO CONTROL>
K15 EXT PAUSE
K16 INPUT SEL
K18 SIF CS
K19 SIF SDA
K17 SYNC DET
K20 SIF SCK
K14 WIDE DET
(I1)
I2
I3
I4
I5
I6
L3505
G1C330J00005
L3506
G1C330J00005
L3507
G1C330J00005
R3553
1K
C3551
22P
C3552
56P
C3553
56P
C3554
22P
R3554
1K
Q3503
2SB1218AR
(AMP)
R3555
1500
C3555
0.1
C3568
0.1
IC3504
C9ZB00000281
(SWITCH)
GND
OUT
VCC
IN3
IN1
CTL1
IN2
CTL2
C3557
0.1
C3556
4.7
IC3503
C9ZB00000281
(SWITCH)
C3558
0.01
C3559
0.01
R3560
2200
R3557
33K
R3561
1K
L3508
G1C330J00005
L3509
G1C330J00005
L3510
G1C330J00005
C3561
22P
C3562
56P
C3563
56P
C3564
22P
R3562
1K
Q3505
2SD1819AW
(AMP)
R3563
2200
C3569
0.01
C3560
0.01
Q3504
2SB1218AR
(AMP)
R3558
33K
R3564
56K
TO MAIN CN(G-31)
<TO VIDEO1/FLASH>
K12 S Y I/O
K13 S C I/O
(I7)
TO MAIN CN(G-31)
<TO VIDEO1/GYRO>
K11 V/HP R
C3566
0.01
R3509
0
R3565 47K
VEE
VCC
IC3502
C0ABJB000002
C3521
0.1
R3507
3900
R3506
1K
R3505
1K
R3504
180
R3503
3300
R3508
0
C3522
0.1
C3523
0.1
C3519
0.1
(I6)
4.8
1.1
4.7
4.7
0
0.7
0.2
0.3
4.8
4.8
0.1
0.1
1.6
2.6
2.4
1.1
1.7
1.1
0.7
1.1
1.1
0
1.1
1.6
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9

PV-DV852 EX INPUT SCHEMATIC DIAGRAM


:VIDEO MAIN SIGNAL PATH
IC3501
C1AB00001280
(ANALOG INPUT)
LB3502 J0JBC0000013
LB3503 J0JBC0000013
C3504 0.01
C3503 4.7
C3502 4.7
C3501 4.7
C3507 0.1
C3506 0.1
C3508 0.01
C3509 0.1
C3510 0.1
C3512 0.1
C3513 0.1
R3580 47K
C3514 10
C3505 0.01
C3507 0.01
C3511 2.2
C3516 0.1
R3515 330
C3515 10
C3517 0.01
R3501 1K
C3518 0.01
R3556 10K
R3568 18K
R3592 820
R3594 820
R3591 1500
R3593 1500
CL3504
CL3503
1 VDD
2 VDD
3 VDD
4 MONI 0(6)
5 MONI 0(5)
6 AVDD2.5
7 AVSS
8 AVBB
9 Y AINC
10 Y AINT
11 Y REFBOT
12 Y CML
13 Y REFTOP
14 Y ITEST
15 Y STBY
16 Y SPEEDUP
17 VCD2
18 DVSS
19 AVBB
20 DVDD2.5
21 Y EOC
22 Y STC
23 C STC
24 C EOC
25 DVDD2.5
26 DVSS
27 AVBB
28 VDD2
29 C SPEEDUP
30 C STBY
31 C ITEST
32 C REFTOP
33 C CNL
34 C REFBOT
35 C AINT
36 C AINC
37 AVBB
38 AVSS
39 AVDD2.5
40 MONI 0(4)
41 MONI 0(3)
42 VSS
43 VSS
44 VSS
45 VDD
46 VDD
47 VDD
48 MONI 0(2)
49 MONI 0(1)
50 VDD
51 MONI 0(0)
52 VSS
53 VDD
54 FS MODE
55 INF I
56 INF 0
57 FS ENBL
58 VDD
59 CLK27N
60 VDDC
61 YC STP
62 VSS
63 YC SDA
64 VSS
65 NOSYNC
66 YC SCK
67 LSI RESET
68 PS
69 VDDC
70 VBLK 0
71 VBLK 1
72 MONI SEL 1(5)
73 MONI SEL 1(4)
74 MONI SEL 1(3)
75 MONI SEL 1(2)
76 MONI SEL 1(1)
77 MONI SEL 1(0)
78 TMS
79 TCK
80 VSS
81 TRST
82 TDI
83 TDO
84 P N SEL
85 CAM IN SEL
86 VSS
87 VSS
88 VSS
89 VDD
90 VDD
91 VDD
92 VDD
93 VIDEO S I
94 INH
95 CPSYNC
96 COLOR FRAM
97 VSS
98 VSS
99 C D O(0)
100 VDD
101 C D O(1)
102 C D O(2)
103 C D O(3)
104 VDD
105 C D O(4)
106 VSS
107 C D O(5)
108 C D O(6)
109 C D O(7)
110 VSS
111 Y D O(0)
112 Y D O(1)
113 VDD
114 INV
115 Y D O(2)
116 Y D O(3)
117 VDD
118 Y D O(4)
119 Y D O(5)
120 Y D O(6)
121 Y D O(7)
122 Y D O(8)
123 Y D O(9)
124 VSS
125 CAM Y(0)
126 CAM Y(1)
127 CAM Y(2)
128 CAM Y(3)
129 VDD
130 VDD
131 VDD
132 VSS
133 VSS
134 VSS
135 CAM Y(4)
136 VDD
137 CAM Y(5)
138 VDD
139 CAM INH
140 CAM INV
141 VSS
142 VDD
143 CAM C(0)
144 VSS
145 VSS
146 CLK135M
147 VDD
148 VDD
149 VDD
150 CAM C(1)
151 CAM C(2)
152 CAM C(3)
153 CAM C(4)
154 VSS
155 CAM C(5)
156 VSS
157 CAM C(6)
158 CAM C(7)
159 VSS
160 VSS
161 CAM Y(6)
162 CAM Y(7)
163 CAM Y(8)
164 CAM Y(9)
165 VDD
166 ALL HIZ N
167 NANDTREE1
168 NANDTREE2
169 VSS
170 VSS
171 MONI 0(9)
172 MONI 0(8)
173 MONI 0(7)
174 VSS
175 VSS
176 VSS
TO MAIN CN(F-31)
<TO VIDEO1/DSC/CAMERA>
CLK135 K39
A8 Y DATAI0 K29
A7 Y DATAI1 K30
A6 Y DATAI2 K31
A5 Y DATAI3 K32
A4 Y DATAI4 K33
A3 Y DATAI5 K34
A2 Y DATAI6 K35
A1 Y DATAI7 K36
B8 C DATAI0 K21
B7 C DATAI1 K22
B6 C DATAI2 K23
B5 C DATAI3 K24
B4 C DATAI4 K25
B3 C DATAI5 K26
B2 C DATAI6 K27
B1 C DATAI7 K28
INV1 K37
INH1 K38
TO MAIN CN(G-31)
<TO VIDEO1/DSC>
CLK27B K10
TO MAIN CN(E-30)
<TO DSC>
I12 TDI SIF K7
TO MAIN CN(F-30)
<TO CONTROL/VIDEO1/2>
I9 X RST K5
TO MAIN CN(F-30)
<TO CAMERA>
I13 CAM TDI K6
TO MAIN CN(E-30)
<TO VIDEO1/EVR/DSC/MAIN CN>
I11 TCK K8
I10 TMS K9
I7
I8
I8 I2 I3 I4 I5 I1 I9 I10 I11 I12 I13
A B C D E F G H I J
10 11 12 13 14 15 16 17

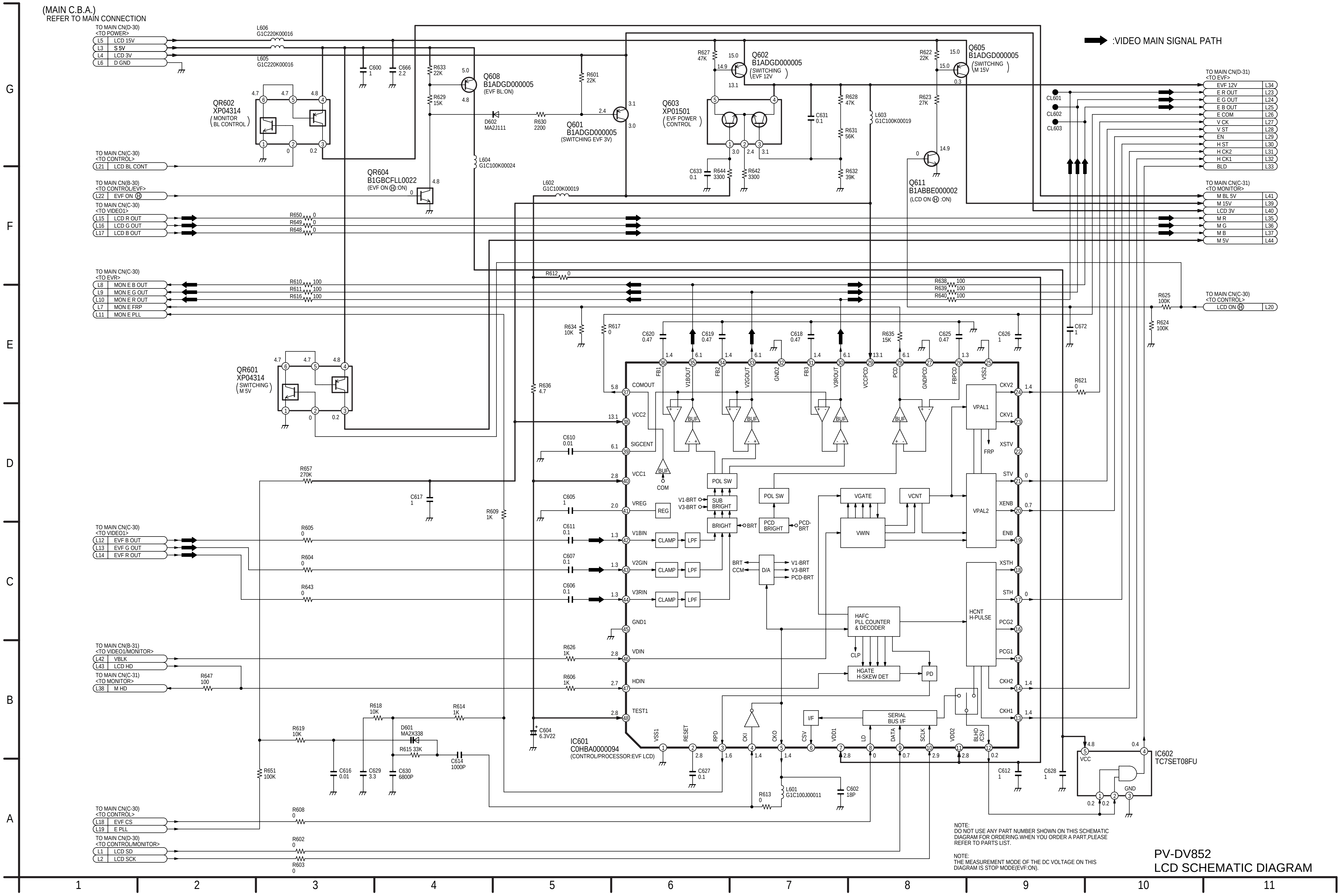
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852 EX INPUT SCHEMATIC DIAGRAM

PV-DV852
EX INPUT SCHEMATIC DIAGRAM

11.28. LCD SCHEMATIC DIAGRAM

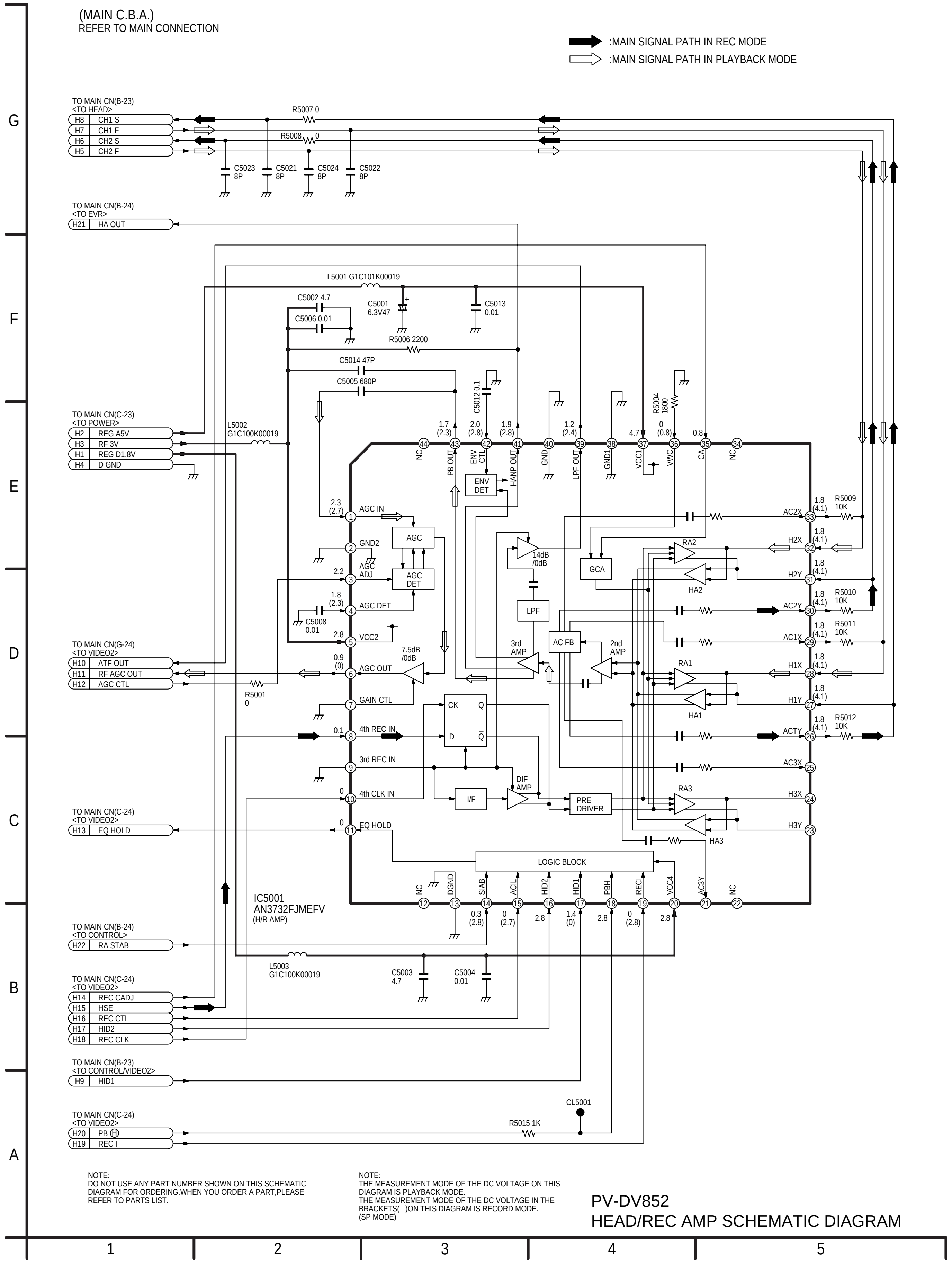

(MAIN C.B.A.)
REFER TO MAIN CONNECTION
TO MAIN CN(D-30) <TO POWER>
L5 LCD 15V
L3 S 5V
L4 LCD 3V
L6 D GND
L606 G1C220K00016
L605 G1C220K00016
C600 1
C666 2.2
R633 22K
R629 15K
Q608 B1ADGD000005 (EVF BL:ON)
D602 MA2J111
R630 2200
R601 22K
Q601 B1ADGD000005 (SWITCHING EVF 3V)
QR602 XP04314 (MONITOR BL CONTROL)
TO MAIN CN(C-30) <TO CONTROL>
L21 LCD BL CONT
L604 G1C100K00024
QR604 B1GBCFLL0022 (EVF ON H:ON)
TO MAIN CN(B-30) <TO CONTROL/EVF>
L22 EVF ON H
L602 G1C100K00019
TO MAIN CN(C-30) <TO VIDEO1>
L15 LCD R OUT
L16 LCD G OUT
L17 LCD B OUT
R650 0
R649 0
R648 0
R627 47K
Q602 B1ADGD000005 (SWITCHING EVF 12V)
Q603 XP01501 (EVF POWER CONTROL)
C633 0.1
R644 3300
R642 3300
C631 0.1
R628 47K
R631 56K
R632 39K
L603 G1C100K00019
R622 22K
R623 27K
Q605 B1ADGD000005 (SWITCHING M 15V)
Q611 B1ABBE000002 (LCD ON H:ON)
:VIDEO MAIN SIGNAL PATH
CL601
CL602
CL603
TO MAIN CN(D-31) <TO EVF>
EVF 12V L34
E R OUT L23
E G OUT L24
E B OUT L25
E COM L26
V CK L27
V ST L28
EN L29
H ST L30
H CK2 L31
H CK1 L32
BLD L33
TO MAIN CN(C-31) <TO MONITOR>
M BL 5V L41
M 15V L39
LCD 3V L40
M R L35
M G L36
M B L37
M 5V L44
TO MAIN CN(C-30) <TO EVR>
L8 MON E B OUT
L9 MON E G OUT
L10 MON E R OUT
L7 MON E FRP
L11 MON E PLL
R610 100
R611 100
R616 100
R612 0
R638 100
R639 100
R640 100
R625 100K
R624 100K
TO MAIN CN(C-30) <TO CONTROL>
LCD ON H L20
R634 10K
R617 0
C620 0.47
C619 0.47
C618 0.47
C625 0.47
C626 1
C672 1
R635 15K
R636 4.7
R621 0
QR601 XP04314 (SWITCHING M 5V)
C610 0.01
R657 270K
C617 1
C605 1
R609 1K
C611 0.1
C607 0.1
C606 0.1
R605 0
R604 0
R643 0
TO MAIN CN(C-30) <TO VIDEO1>
L12 EVF B OUT
L13 EVF G OUT
L14 EVF R OUT
TO MAIN CN(B-31) <TO VIDEO1/MONITOR>
L42 VBLK
L43 LCD HD
TO MAIN CN(C-31) <TO MONITOR>
L38 M HD
R647 100
R626 1K
R606 1K
R618 10K
R614 1K
D601 MA2X338
R615 33K
C614 1000P
R619 10K
C604 6.3V22
R651 100K
C616 0.01
C629 3.3
C630 6800P
IC601 C0HBA0000094 (CONTROL/PROCESSOR:EVF LCD)
C627 0.1
R613 0
L601 G1C100J00011
C602 18P
C612 1
C628 1
IC602 TC7SET08FU
VCC
GND
TO MAIN CN(C-30) <TO CONTROL>
L18 EVF CS
L19 E PLL
TO MAIN CN(D-30) <TO CONTROL/MONITOR>
L1 LCD SD
L2 LCD SCK
R608 0
R602 0
R603 0
FB1
V1BOUT
FB2
V2GOUT
GND2
FB3
V3ROUT
VCCPCD
PCD
GNDPCD
FBPCD
VSS2
COMOUT
VCC2
SIGCENT
VCC1
VREG
V1BIN
V2GIN
V3RIN
GND1
VDIN
HDIN
TEST1
VSS1
RESET
RPD
CKI
CKO
CSV
VDD1
LD
DATA
SCLK
VDD2
BLHD ICSV
CKV2
CKV1
XSTV
STV
XENB
ENB
XSTH
STH
PCG2
PCG1
CKH2
CKH1
VPAL1
VPAL2
FRP
HCNT H-PULSE
BUF
COM
POL SW
SUB BRIGHT
V1-BRT
V3-BRT
BRIGHT
BRT
PCD BRIGHT
PCD-BRT
REG
CLAMP
LPF
VGATE
VCNT
VWIN
D/A
CCM
V2-BRT
HAFC PLL COUNTER & DECODER
CLP
HGATE H-SKEW DET
PD
I/F
SERIAL BUS I/F
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE(EVF:ON).

PV-DV852
LCD SCHEMATIC DIAGRAM

11.29. HEAD/REC AMP SCHEMATIC DIAGRAM


(MAIN C.B.A.)
REFER TO MAIN CONNECTION
:MAIN SIGNAL PATH IN REC MODE
:MAIN SIGNAL PATH IN PLAYBACK MODE
TO MAIN CN(B-23) <TO HEAD>
H8 CH1 S
H7 CH1 F
H6 CH2 S
H5 CH2 F
R5007 0
R5008 0
C5023 8P
C5021 8P
C5024 8P
C5022 8P
TO MAIN CN(B-24) <TO EVR>
H21 HA OUT
L5001 G1C101K00019
C5002 4.7
C5006 0.01
C5001 6.3V47
C5013 0.01
R5006 2200
C5014 47P
C5005 680P
C5012 0.1
R5004 1800
TO MAIN CN(C-23) <TO POWER>
H2 REG A5V
H3 RF 3V
H1 REG D1.8V
H4 D GND
L5002 G1C100K00019
NC
PB OUT
ENV CTL
HANP OUT
GND1
LPF OUT
GND1
VCC1
VWC
CA
NC
ENV DET
AGC IN
GND2
AGC ADJ
AGC DET
VCC2
AGC OUT
GAIN CTL
4th REC IN
3rd REC IN
4th CLK IN
EQ HOLD
AGC
AGC DET
14dB /0dB
7.5dB /0dB
LPF
GCA
3rd AMP
AC FB
2nd AMP
CK Q D QI
DIF AMP
I/F
PRE DRIVER
RA1 RA2 RA3
HA1 HA2 HA3
AC2X H2X H2Y AC2Y AC1X H1X H1Y AC1Y AC3X H3X H3Y
R5009 10K
R5010 10K
R5011 10K
R5012 10K
C5008 0.01
TO MAIN CN(G-24) <TO VIDEO2>
H10 ATF OUT
H11 RF AGC OUT
H12 AGC CTL
R5001 0
TO MAIN CN(C-24) <TO VIDEO2>
H13 EQ HOLD
LOGIC BLOCK
NC DGND SIAB ACIL HID2 HID1 PBH RECI VCC4 AC3Y NC
IC5001
AN3732FJMEFV
(H/R AMP)
TO MAIN CN(B-24) <TO CONTROL>
H22 RA STAB
L5003 G1C100K00019
C5003 4.7
C5004 0.01
TO MAIN CN(C-24) <TO VIDEO2>
H14 REC CADJ
H15 HSE
H16 REC CTL
H17 HID2
H18 REC CLK
TO MAIN CN(B-23) <TO CONTROL/VIDEO2>
H9 HID1
CL5001
TO MAIN CN(C-24) <TO VIDEO2>
R5015 1K
H20 PB H
H19 REC I
G F E D C B A
1 2 3 4 5

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS PLAYBACK MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE.
(SP MODE)

PV-DV852
HEAD/REC AMP SCHEMATIC DIAGRAM

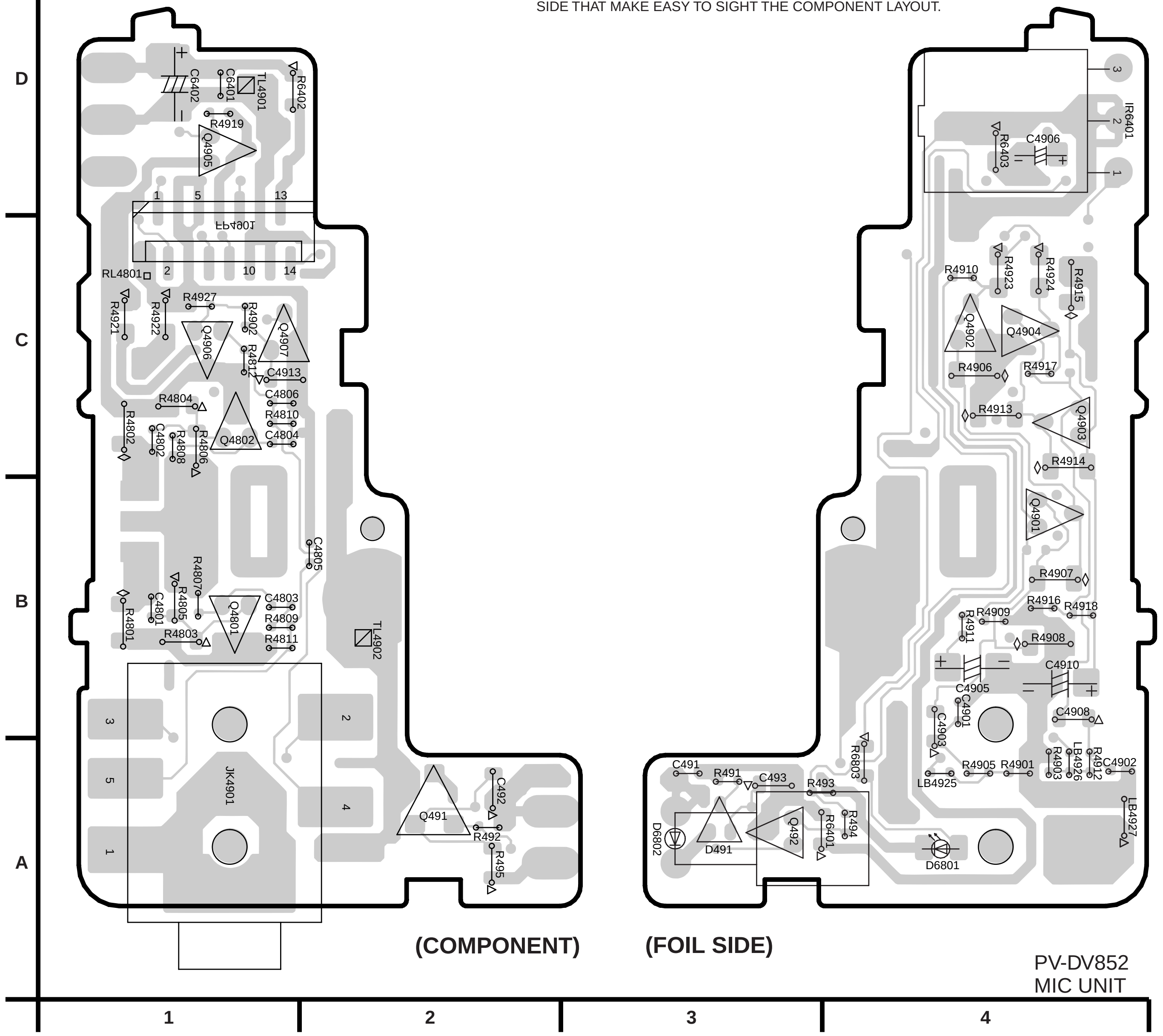
12 CIRCUIT BOARD ASSEMBLIES

12.1. MIC UNIT

NOTE:MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

(VEK9324)


D
C
B
A
1
2
3
4
C6402
C6401
TL4901
R6402
R4919
Q4905
IR6401
RL4801
R4927
R4921
R4922
Q4906
R4902
Q4907
R4812
C4913
R4804
C4806
R4810
C4804
R4802
C4802
R4808
R4806
Q4802
C4805
R4807
R4805
C4801
R4801
Q4801
C4803
R4809
R4811
R4803
TL4902
JK4901
Q491
C492
R492
R495
R6403
C4906
R4910
R4923
R4924
R4915
Q4902
Q4904
R4906
R4917
R4913
Q4903
R4914
Q4901
R4907
R4916
R4918
R4909
R4911
R4908
C4910
C4905
C4908
C4903
C4904
R4905
R4901
R4903
LB4926
R4912
C4902
LB4925
LB4927
R6803
C491
R491
C493
R493
D6802
D491
Q492
R6401
R494
D6801
(COMPONENT)
(FOIL SIDE)
PV-DV852
MIC UNIT

12.2. GRYO C.B.A.

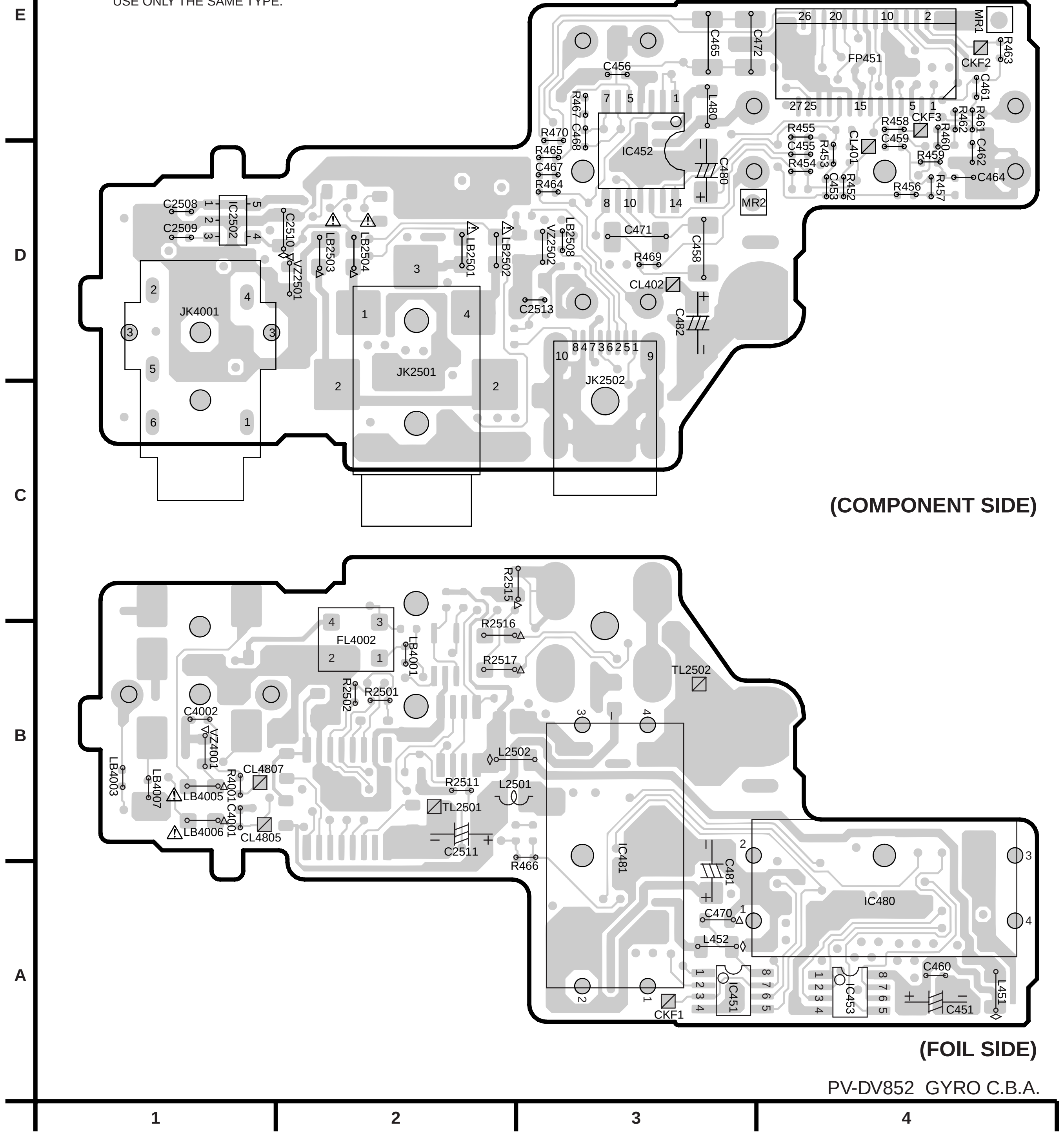
(VEP04781C)

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE:MULTILAYER C.B.A.

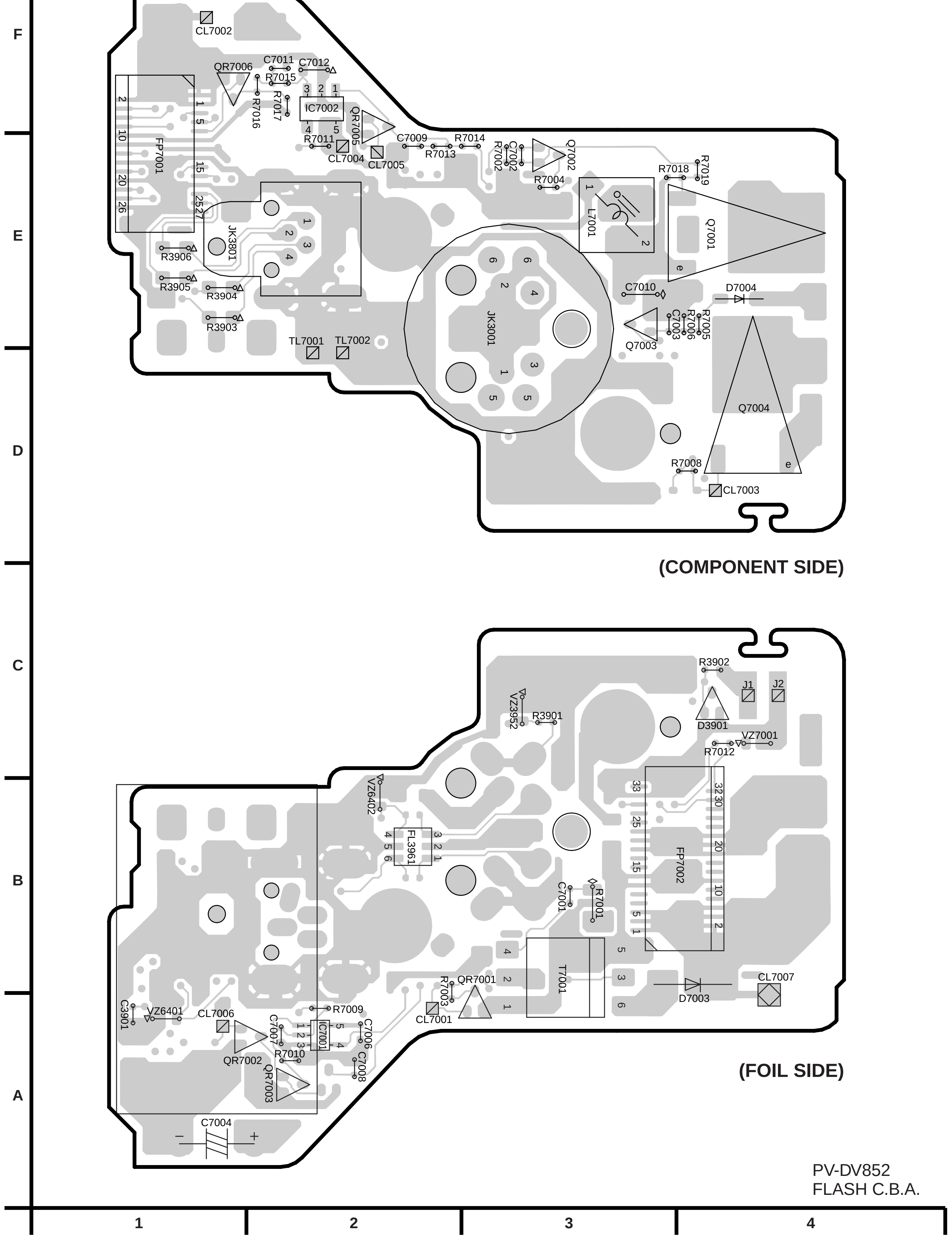
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


E
D
C
B
A
1
2
3
4
C465
C472
FP451
MR1
R463
CKF2
C456
R467
C468
IC452
L480
R470
R465
C467
R464
C480
R455
C455
R454
R453
CL401
R458
C459
CKF3
R462
R461
R460
R459
R456
R457
R452
C462
C464
MR2
C2508
C2509
IC2502
C2510
VZ2501
LB2503
LB2504
LB2501
LB2502
VZ2502
LB2508
C471
R469
C458
CL402
C482
C2513
JK4001
JK2501
JK2502
(COMPONENT SIDE)
R2515
R2516
R2517
FL4002
LB4001
R2502
R2501
C4002
VZ4001
TL2502
LB4003
LB4007
LB4005
LB4006
R4001
C4001
CL4807
CL4805
L2502
L2501
R2511
TL2501
C2511
R466
IC481
C481
C470
L452
IC480
IC451
IC453
C460
C451
L451
CKF1
(FOIL SIDE)
PV-DV852 GYRO C.B.A.

12.3. FLASH C.B.A.

(VEP07A42A)

NOTE:MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


F
E
D
C
B
A
1
2
3
4
CL7002
QR7006
C7011
C7012
R7015
R7016
R7017
IC7002
QR7005
R7011
CL7004
CL7005
C7009
R7014
R7013
R7002
C7002
Q7002
R7004
R7018
R7019
FP7001
JK3801
L7001
Q7001
R3906
R3905
R3904
R3903
TL7001
TL7002
JK3001
C7010
D7004
Q7003
C7003
R7006
R7005
Q7004
R7008
CL7003
R3902
VZ3952
R3901
J1
J2
D3901
VZ7001
R7012
VZ6402
FL3961
FP7002
C7001
R7001
T7001
QR7001
R7003
CL7001
D7003
CL7007
C3901
VZ6401
CL7006
C7007
R7009
IC7001
C7006
C7008
R7010
QR7002
QR7003
C7004

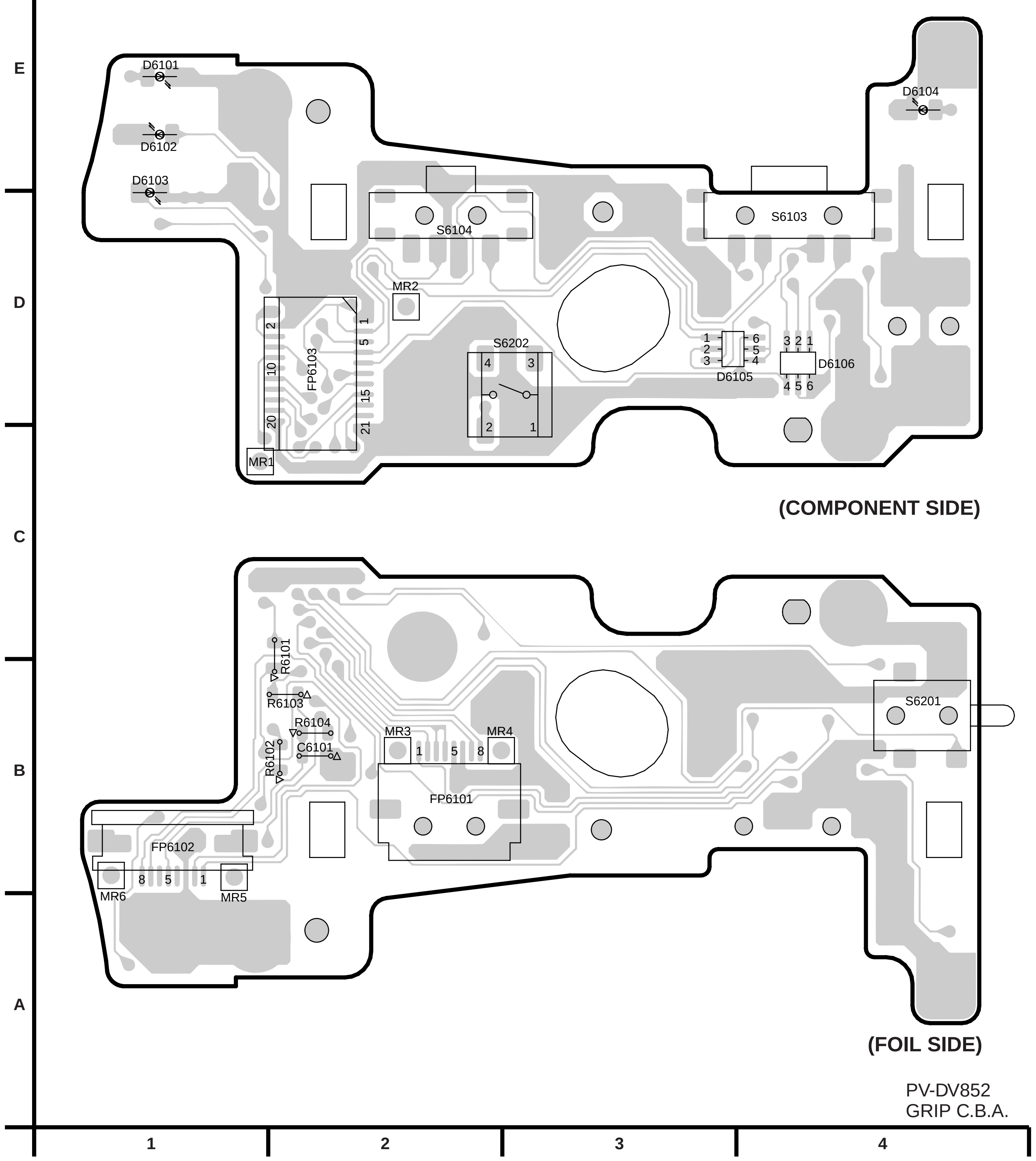
(COMPONENT SIDE)

(FOIL SIDE)

PV-DV852
FLASH C.B.A.

12.4. GRIP C.B.A.

(VEP06E28A)

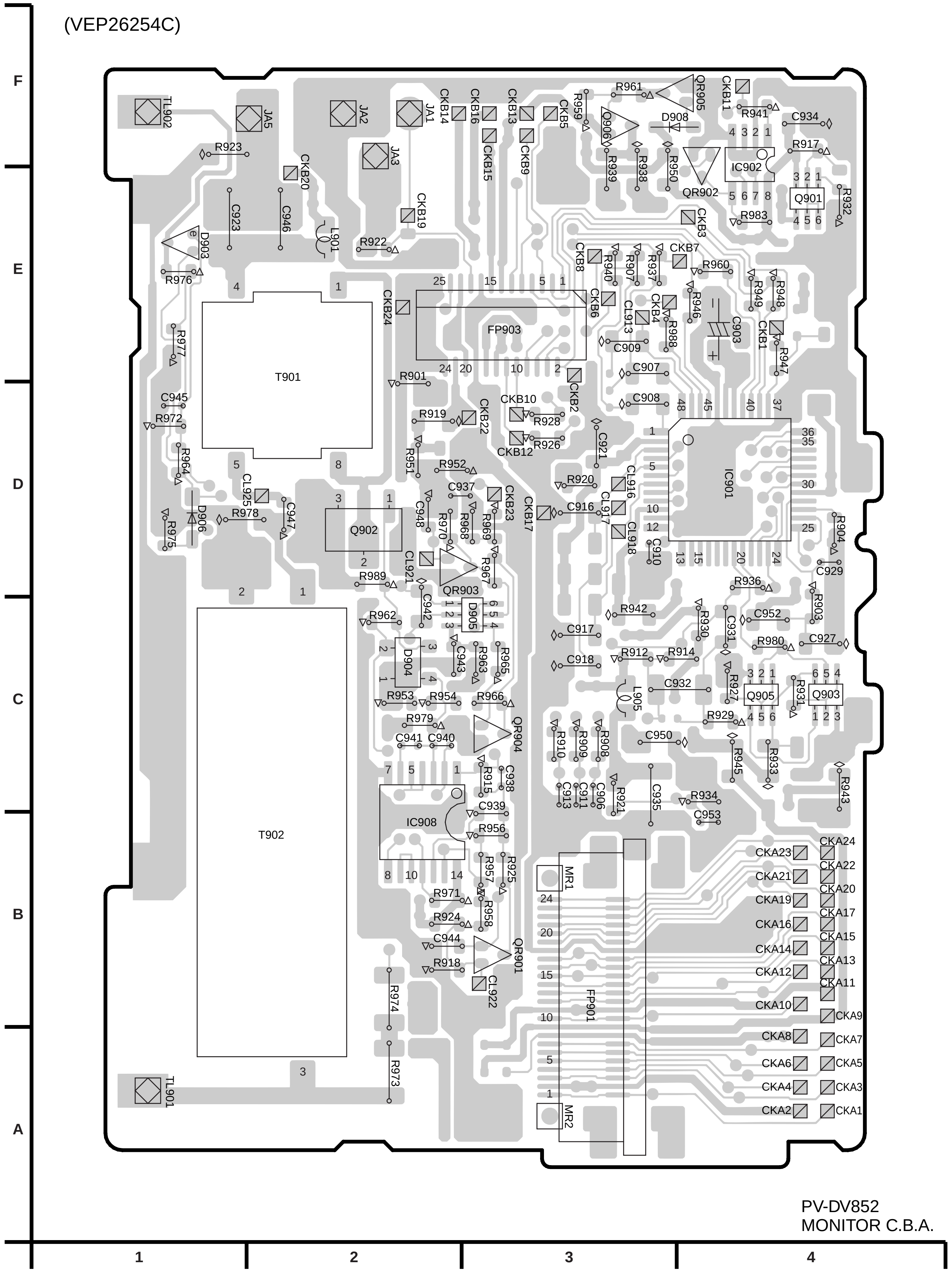

E
D
C
B
A
1
2
3
4
D6101
D6102
D6103
D6104
S6104
S6103
MR2
FP6103
S6202
D6105
D6106
MR1
R6101
R6103
R6104
C6101
R6102
MR3
MR4
FP6101
S6201
FP6102
MR6
MR5

(COMPONENT SIDE)

(FOIL SIDE)

PV-DV852
GRIP C.B.A.

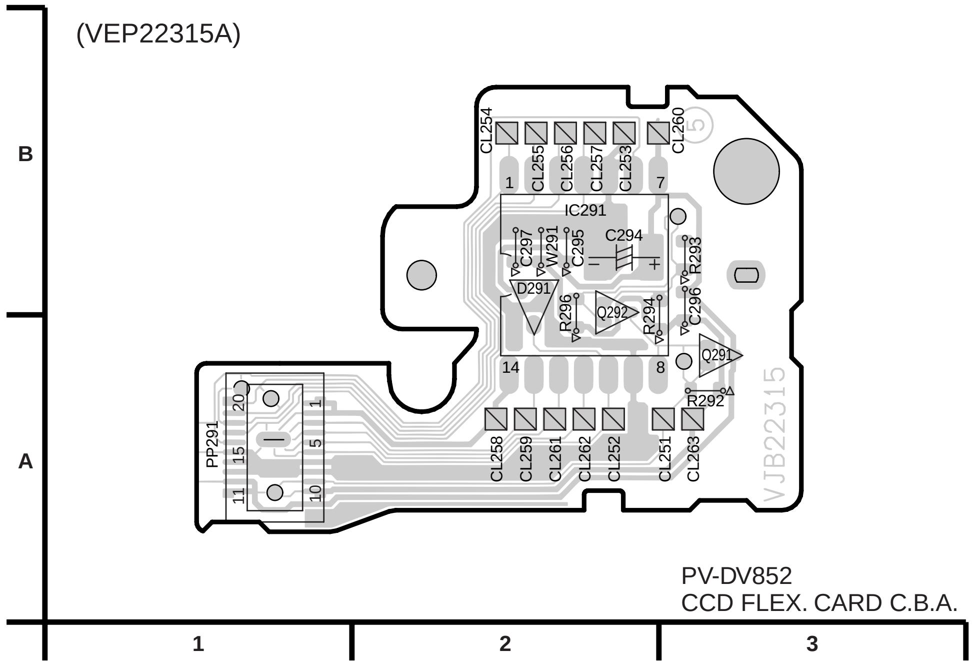
12.5. MONITOR C.B.A.


(VEP26254C)
F
E
D
C
B
A
1
2
3
4
T901
T902
IC901
IC902
IC908
FP901
FP903
Q901
Q902
Q903
Q905
Q906
QR901
QR902
QR903
QR904
QR905
TL901
TL902
JA1
JA2
JA3
JA5
MR1
MR2
PV-DV852
MONITOR C.B.A.

Monitor C.B.A.											
Integrated Circuit		**Connector**		C918	C-3	R903	D-4	R934	C-4	R963	C-3
IC901	D-4	FP901	B-3	C921	D-3	R904	D-4	R936	D-4	R964	D-1
IC902	E-4	FP903	E-3	C923	E-1	R907	E-3	R937	E-3	R965	C-3
IC908	B-2	**Diode**		C927	D-4	R908	C-3	R938	E-3	R966	C-3
Transistor		D903	E-1	C929	D-4	R909	C-3	R939	E-3	R967	D-3
Q901	E-4	D904	C-2	C931	D-4	R910	C-3	R940	E-3	R968	D-3
Q902	D-2	D905	D-3	C932	C-4	R912	C-3	R941	F-4	R969	D-3
Q903	C-4	D906	D-1	C934	F-4	R914	C-4	R942	D-3	R970	D-2
Q905	C-4	D908	F-3	C935	C-3	R915	C-3	R943	C-4	R971	B-2
Q906	F-3	**Transformer**		C937	D-2	R917	F-4	R945	C-4	R972	D-1
Transistor & Resistor		T901	E-2	C938	C-3	R918	B-2	R946	E-4	R973	A-2
QR901	B-3	T902	B-2	C939	B-3	R919	D-2	R947	E-4	R974	B-2
QR902	E-4	**Coil**		C940	C-2	R920	D-3	R948	E-4	R975	D-1
QR903	D-2	L901	E-2	C941	C-2	R921	C-3	R949	E-4	R976	E-1
QR904	C-3	L905	C-3	C942	D-2	R922	E-2	R950	E-3	R977	E-1
QR905	F-3	**Capacitor**		C943	C-2	R923	F-1	R951	D-2	R978	D-1
Test Point		C903	E-4	C944	B-2	R924	B-2	R952	D-2	R979	C-2
CL913	E-3	C906	C-3	C945	D-1	R925	B-3	R953	C-2	R980	D-4
CL916	D-3	C907	E-3	C946	E-2	R926	D-3	R954	C-2	R983	E-4
CL917	D-3	C908	D-3	C947	D-2	R927	C-4	R956	B-3	R988	E-3
CL918	D-3	C909	E-3	C948	D-2	R928	D-3	R957	B-3	R989	D-2
CL921	D-2	C910	D-3	C950	C-3	R929	C-4	R958	B-3		
CL922	B-3	C911	C-3	C952	D-4	R930	D-4	R959	F-3		
CL925	D-2	C913	C-3	C953	B-4	R931	C-4	R960	E-4		
TL901	A-1	C916	D-3	**Resistor**		R932	E-4	R961	F-3		
TL902	F-1	C917	D-3	R901	D-2	R933	C-4	R962	D-2		

ADDRESS INFORMATION

12.6. CCD FLEX. CARD C.B.A.


(VEP22315A)
B
A
1
2
3
IC291
Q291
Q292
D291
PP291
C294
C295
C296
C297
W291
R292
R293
R294
R296
CL251
CL252
CL253
CL254
CL255
CL256
CL257
CL258
CL259
CL260
CL261
CL262
CL263
VJB22315
PV-DV852
CCD FLEX. CARD C.B.A.

12.7. MAIN C.B.A. (COMPONENTSIDE)

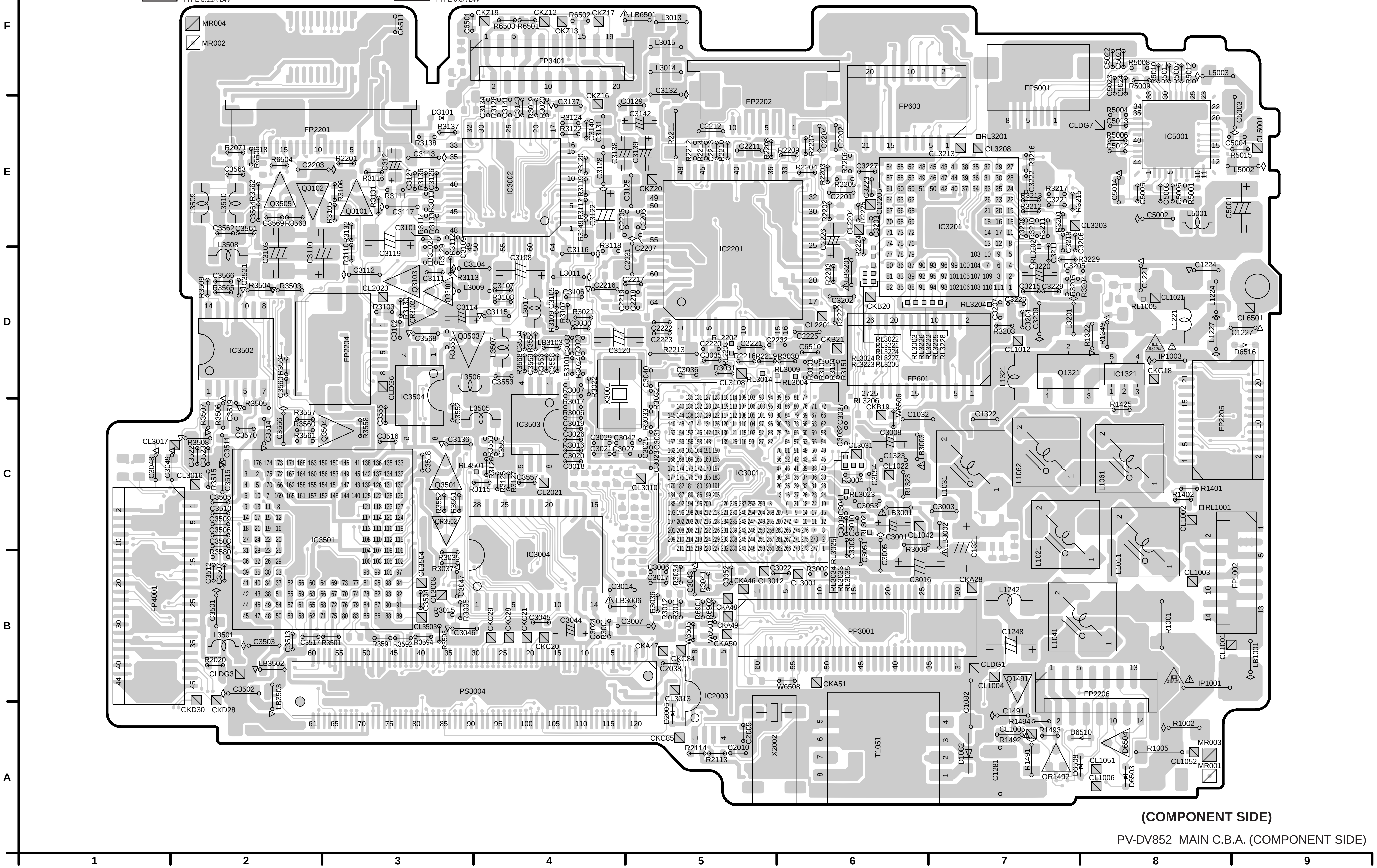
(VEP03F95G)

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 3.15A 24V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÊME TYPE 3.15A 24V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 0.8A 24V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÊME TYPE 0.8A 24V

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE:MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.



F
E
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5
6
7
8
9
3.15A 24V
0.8A 24V
MR004
MR002
FP2201
FP3401
FP2202
FP603
FP5001
IC5001
IC3002
IC2201
IC3201
Q3505
Q3102
Q3101
IC3502
FP2204
IC3504
IC3503
Q3503
X3001
C3120
FP601
Q1321
IC1321
FP2205
IC3001
IC3501
Q3501
QR3502
IC3004
FP4001
PP3001
PS3004
IC2003
X2002
T1051
FP2206
FP1002
Q1491
QR1492
IP1001
IP1003
L1031
L1062
L1061
L1021
L1011
L1041

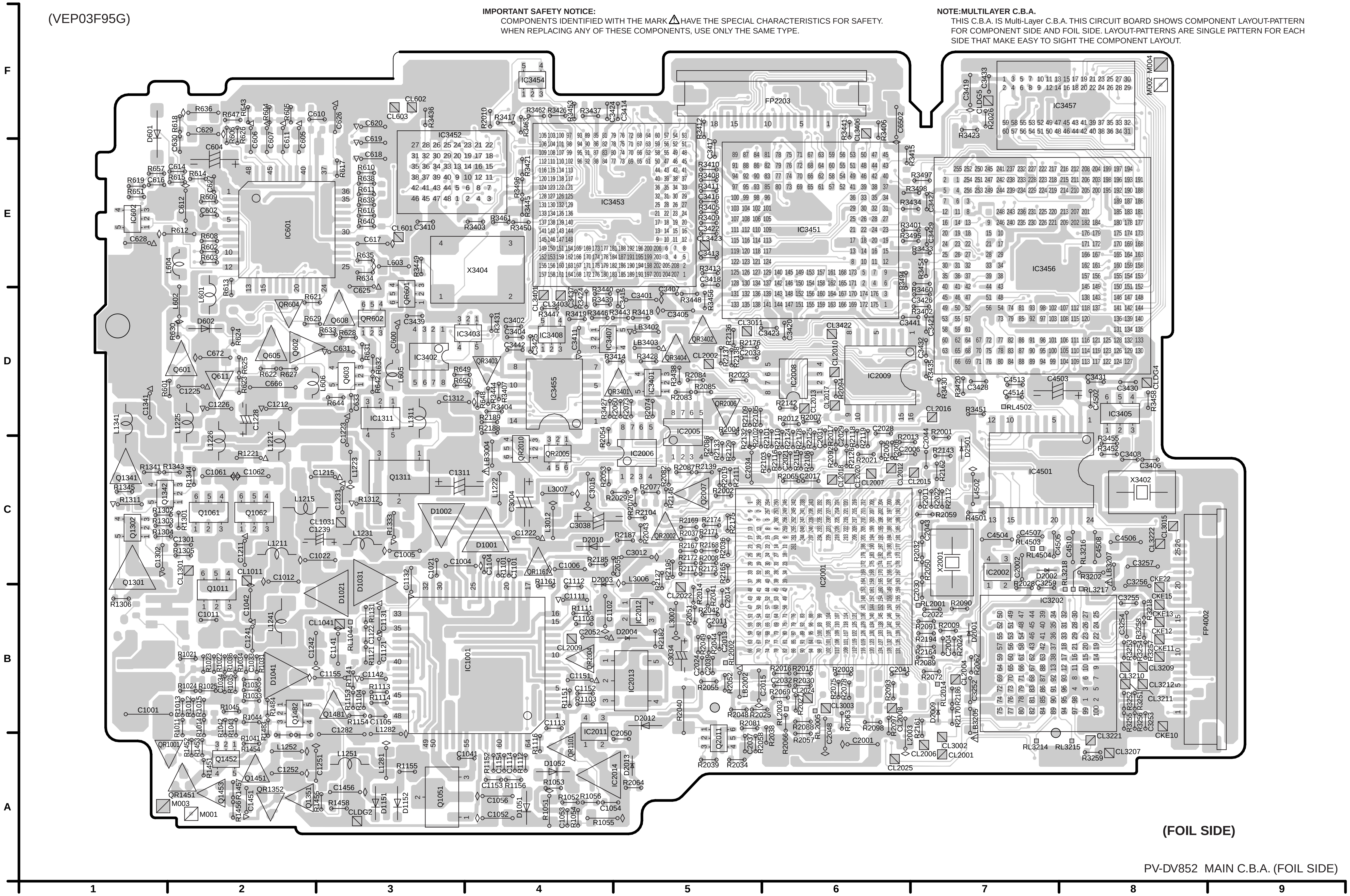
(COMPONENT SIDE)

PV-DV852 MAIN C.B.A. (COMPONENT SIDE)

12.8. MAIN C.B.A. (FOIL SIDE)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE:MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


(VEP03F95G)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
IC601
IC602
IC3452
IC3453
IC3454
IC3451
IC3456
IC3457
FP2203
X3404
IC3402
IC3403
IC1311
Q1311
IC3455
IC3408
IC3407
IC3401
IC2008
IC2009
IC2005
IC2006
IC2010
IC4501
IC3405
X3402
IC2001
IC2002
X2001
IC3202
FP4002
IC1001
IC2012
IC2013
IC2011
IC2014
Q1051
D1001
D1002
D1021
D1031
D1041
Q1061
Q1062
Q1011
Q1301
Q1302
Q1341
Q1342
Q1451
Q1452
Q1482
Q601
Q605
Q608
QR602
QR601
M001
M002
M003
M004
(FOIL SIDE)

PV-DV852 MAIN C.B.A. (FOIL SIDE)

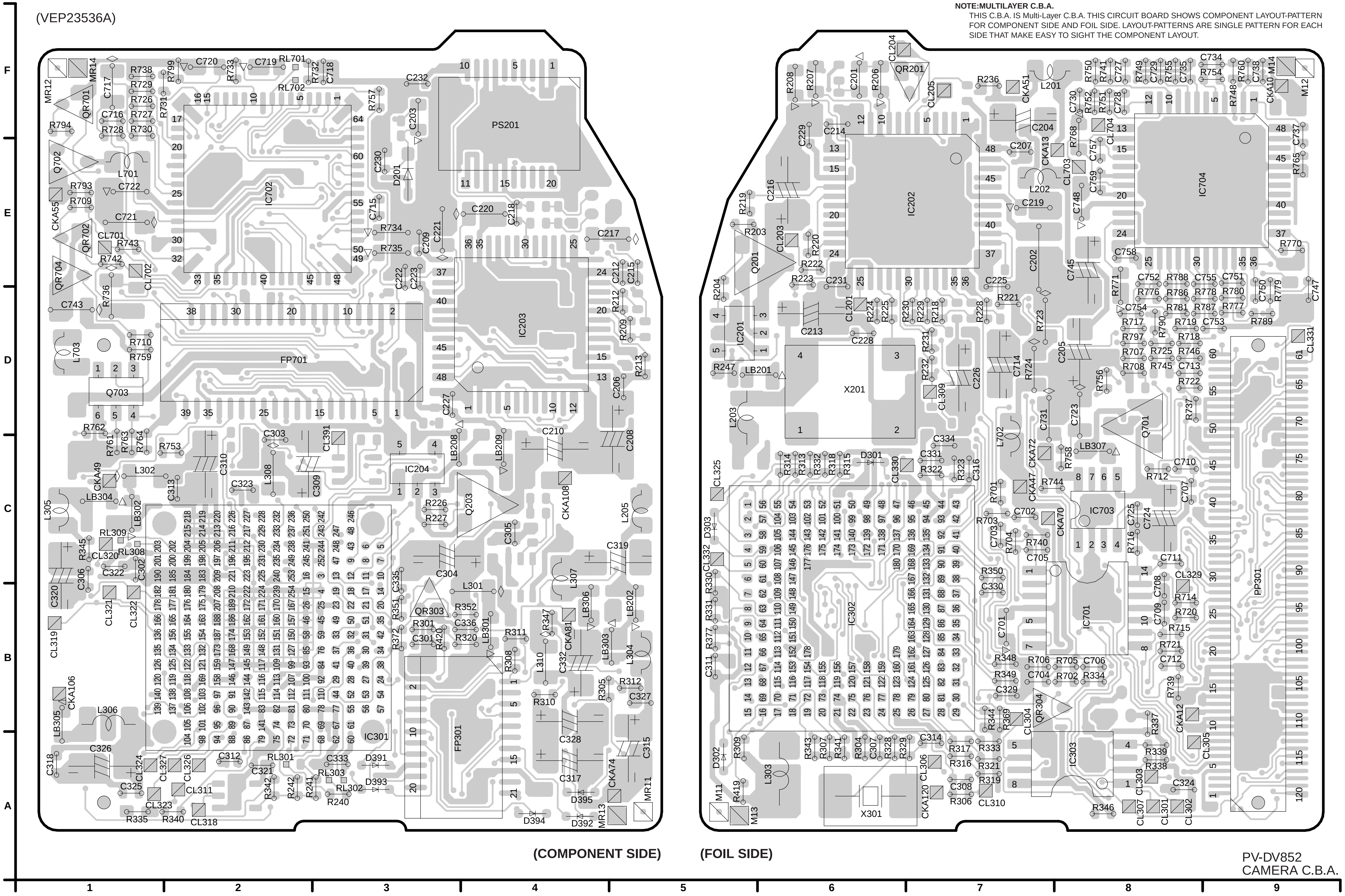
12.9. MAIN C.B.A. ADDRESS INFORMATION

Main C.B.A.		
Integrated Circuit		
IC601	E-2	**F**
IC602	E-1	**F**
IC1001	B-4	**F**
IC1311	D-3	**F**
IC1321	D-8	**C**
IC2001	C-6	**F**
IC2002	C-7	**F**
IC2003	B-5	**C**
IC2005	D-5	**F**
IC2006	C-5	**F**
IC2008	D-6	**F**
IC2009	D-6	**F**
IC2011	B-4	**F**
IC2012	B-5	**F**
IC2013	B-5	**F**
IC2014	A-4	**F**
IC2201	D-5	**C**
IC3001	C-5	**C**
IC3002	E-4	**C**
IC3004	B-4	**C**
IC3201	E-7	**C**
IC3202	B-7	**F**
IC3401	D-5	**F**
IC3402	D-3	**F**
IC3403	D-4	**F**
IC3405	D-8	**F**
IC3407	D-4	**F**
IC3408	D-4	**F**
IC3451	E-6	**F**
IC3452	E-3	**F**
IC3453	E-4	**F**
IC3454	F-4	**F**
IC3455	D-4	**F**
IC3456	E-7	**F**
IC3457	F-8	**F**
IC3501	C-2	**C**
IC3502	D-2	**C**
IC3503	C-4	**C**
IC3504	D-3	**C**
IC4501	C-7	**F**
IC5001	E-8	**C**
Transistor		
Q601	D-2	**F**
Q602	D-2	**F**
Q603	D-3	**F**
Q605	D-2	**F**
Q608	D-3	**F**
Q611	D-2	**F**
Q1011	B-2	**F**
Q1051	A-3	**F**
Q1061	C-2	**F**
Q1062	C-2	**F**
Q1301	C-1	**F**
Q1302	C-1	**F**
Q1311	C-3	**F**
Q1321	D-7	**C**
Q1341	C-1	**F**
Q1342	C-1	**F**
Q1351	A-2	**F**
Q1451	A-2	**F**
Q1452	A-2	**F**
Q1453	A-2	**F**
Q1481	B-3	**F**
Q1482	B-2	**F**
Q1491	B-7	**C**
Q2007	C-5	**F**
Q2011	A-5	**F**
Q3101	E-3	**C**
Q3102	E-2	**C**
Q3103	D-3	**C**
Q3501	C-3	**C**
Q3503	D-3	**C**
Q3504	C-3	**C**
Q3505	E-2	**C**
Transistor &Resistor		
QR601	D-3	**F**
QR602	D-3	**F**
QR604	D-2	**F**
QR1001	A-2	**F**
QR1101	A-4	**F**
QR1161	C-4	**F**
QR1352	A-2	**F**
QR1451	A-2	**F**
QR1492	A-7	**C**
QR2002	C-5	**F**
QR2004	B-4	**F**
QR2005	C-4	**F**
QR2006	D-5	**F**
QR2010	C-4	**F**
QR3101	D-3	**C**
QR3102	D-3	**C**
QR3401	D-5	**F**
QR3402	D-5	**F**
QR3403	D-4	**F**
QR3404	D-5	**F**
QR3502	C-3	**C**
Test Point		
CL601	E-3	**F**
CL602	F-3	**F**
CL603	F-3	**F**
CL1001	B-9	**C**
CL1002	C-8	**C**
CL1003	B-8	**C**
CL1004	B-7	**C**
CL1005	A-7	**C**
CL1006	A-8	**C**
CL1011	C-2	**F**
CL1012	D-7	**C**
CL1021	D-8	**C**
CL1022	C-6	**C**
CL1031	C-3	**F**
CL1041	B-3	**F**
CL1042	C-6	**C**
CL1051	A-8	**C**
CL1052	A-8	**C**
CL1301	C-2	**F**
CL2001	A-7	**F**
CL2002	D-5	**F**
CL2004	B-7	**F**
CL2006	A-7	**F**
CL2007	C-6	**F**
CL2008	B-6	**F**
CL2009	B-4	**F**
CL2010	D-6	**F**
CL2012	C-6	**F**
CL2013	D-6	**F**
CL2015	C-7	**F**
CL2016	D-7	**F**
CL2017	D-6	**F**
CL2018	C-6	**F**
CL2020	C-6	**F**
CL2021	C-4	**C**
CL2022	B-5	**F**
CL2023	D-3	**C**
CL2024	B-6	**F**
CL2025	A-6	**F**
CL2201	D-6	**C**
CL2204	E-6	**C**
CL2205	E-6	**C**
CL3001	B-6	**C**
CL3002	A-7	**F**
CL3003	B-6	**F**
CL3008	B-3	**C**
CL3010	C-5	**C**
CL3011	D-5	**F**
CL3012	B-5	**C**
CL3013	B-5	**C**
CL3015	C-8	**F**
CL3016	C-2	**C**
CL3017	C-2	**C**
CL3031	C-6	**C**
CL3108	D-5	**C**
CL3203	E-7	**C**
CL3207	A-8	**F**
CL3208	E-7	**C**
CL3209	B-8	**F**
CL3210	B-8	**F**
CL3211	B-8	**F**
CL3212	B-8	**F**
CL3213	E-7	**C**
CL3221	A-8	**F**
CL3222	C-8	**F**
CL3401	D-4	**F**
CL3403	D-4	**F**
CL3406	F-6	**F**
CL3422	D-6	**F**
CL3423	E-5	**F**
CL3503	B-3	**C**
CL3504	B-3	**C**
CL5001	E-9	**C**
CL6501	D-9	**C**
RL1001	C-8	**C**
RL1005	D-8	**C**
RL1044	B-3	**F**
RL2001	B-7	**F**
RL2002	B-5	**F**
RL2003	B-6	**F**
RL2005	B-6	**F**
RL2014	B-7	**F**
RL2202	D-5	**C**
RL2203	D-5	**C**
RL3003	D-6	**C**
RL3004	D-6	**C**
RL3009	D-6	**C**
RL3014	D-5	**C**
RL3021	C-6	**C**
RL3022	D-6	**C**
RL3023	C-6	**C**
RL3024	D-6	**C**
RL3025	C-6	**C**
RL3033	C-6	**C**
RL3034	C-6	**C**
RL3035	C-6	**C**
RL3201	E-7	**C**
RL3202	D-7	**C**
RL3204	D-7	**C**
RL3205	D-6	**C**
RL3206	C-6	**C**
RL3214	A-7	**F**
RL3215	A-8	**F**
RL3216	B-8	**F**
RL3217	B-8	**F**
RL3218	B-8	**F**
RL3221	D-6	**C**
RL3222	D-6	**C**
RL3223	D-6	**C**
RL3224	D-6	**C**
RL3225	D-7	**C**
RL3226	D-6	**C**
RL3227	D-6	**C**
RL3228	D-7	**C**
RL4501	C-4	**C**
RL4502	D-7	**F**
RL4503	C-7	**F**
RL4504	C-7	**F**
Connector		
FP601	D-6	**C**
FP603	E-6	**C**
FP1002	B-9	**C**
FP2201	E-2	**C**
FP2202	E-5	**C**
FP2203	F-6	**F**
FP2204	D-3	**C**
FP2205	C-8	**C**
FP2206	B-8	**C**
FP3401	F-4	**C**
FP4001	B-1	**C**
FP4002	B-8	**F**
FP5001	F-7	**C**
PP3001	B-6	**C**
PS3004	B-4	**C**
Fuse		
IP1001	B-8	**C**
IP1003	D-8	**C**
Diode		
D601	F-1	**F**
D602	D-2	**F**
D1001	C-4	**F**
D1002	C-3	**F**
D1021	B-3	**F**
D1031	C-3	**F**
D1041	B-2	**F**
D1051	A-4	**F**
D1052	A-4	**F**
D1082	A-7	**C**
D1151	A-3	**F**
D1152	A-3	**F**
D2001	B-7	**F**
D2002	C-7	**F**
D2003	B-4	**F**
D2004	B-5	**F**
D2005	A-5	**C**
D2009	B-7	**F**
D2010	C-4	**F**
D2012	B-5	**F**
D2013	A-5	**F**
D2501	C-7	**F**
D3101	E-3	**C**
D6503	A-8	**C**
D6504	A-8	**C**
D6508	A-8	**C**
D6510	A-8	**C**
D6516	D-9	**C**
Transformer		
T1051	A-6	**C**
Crystal Ocillator		
X2001	C-7	**F**
X2002	A-5	**C**
X3001	D-4	**C**
X3402	C-8	**F**
X3404	E-4	**F**
Coil		
L601	D-2	**F**
L602	D-2	**F**
L603	E-3	**F**
L604	E-2	**F**
L605	D-3	**F**
L606	D-2	**F**
L1011	C-8	**C**
L1021	C-7	**C**
L1031	C-7	**C**
L1041	B-8	**C**
L1061	C-8	**C**
L1062	C-7	**C**
L1211	C-2	**F**
L1212	C-2	**F**
L1215	C-2	**F**
L1221	D-8	**C**
L1222	C-4	**F**
L1223	C-3	**F**
L1224	D-8	**C**
L1225	D-2	**F**
L1226	C-2	**F**
L1227	D-8	**C**
L1231	C-3	**F**
L1241	B-2	**F**
L1242	B-7	**C**
L1251	A-3	**F**
L1252	A-2	**F**
L1281	A-3	**F**
L1282	A-3	**F**
L1311	D-3	**F**
L1321	D-7	**C**
L1341	D-1	**F**
L2003	B-6	**F**
L3002	B-5	**F**
L3006	C-5	**F**
L3007	C-4	**F**
L3009	D-4	**C**
L3011	D-4	**C**
L3012	C-4	**F**
L3013	F-5	**C**
L3014	F-5	**C**
L3015	F-5	**C**
L3017	D-4	**C**
L3201	D-7	**C**
L3501	B-2	**C**
L3505	C-4	**C**
L3506	D-3	**C**
L3507	D-4	**C**
L3508	D-2	**C**
L3509	E-2	**C**
L3510	E-2	**C**
L4502	C-7	**F**
L5001	E-8	**C**
L5002	E-9	**C**
L5003	F-8	**C**
LB1001	B-9	**C**
LB2002	B-5	**F**
LB3001	C-6	**C**
LB3002	C-7	**C**
LB3003	C-6	**C**
LB3004	C-4	**F**
LB3006	B-4	**C**
LB3101	D-4	**C**
LB3102	D-3	**C**
LB3103	D-4	**C**
LB3201	D-6	**C**
LB3205	B-7	**F**
LB3207	C-8	**F**
LB3402	D-5	**F**
LB3403	D-5	**F**
LB3502	B-2	**C**
LB3503	B-2	**C**
LB6501	F-5	**C**
Capasitor		
C600	D-3	**F**
C602	E-2	**F**
C604	E-2	**F**
C605	E-2	**F**
C606	E-2	**F**
C607	E-2	**F**
C610	F-3	**F**
C611	E-2	**F**
C612	E-2	**F**
C614	E-2	**F**
C616	E-1	**F**
C617	E-3	**F**
C618	E-3	**F**
C619	E-3	**F**
C620	F-3	**F**
C625	D-3	**F**
C626	F-3	**F**
C627	E-2	**F**
C628	E-1	**F**
C629	F-2	**F**
C630	E-2	**F**
C631	D-3	**F**
C633	D-3	**F**
C666	D-2	**F**
C672	D-2	**F**
C1001	B-1	**F**
C1004	C-3	**F**
C1005	C-3	**F**
C1006	C-4	**F**
C1011	B-2	**F**
C1012	C-2	**F**
C1021	C-3	**F**
C1022	C-3	**F**
C1032	C-6	**C**
C1033	B-2	**F**
C1034	B-2	**F**
C1041	A-3	**F**
C1042	B-2	**F**
C1052	A-4	**F**
C1053	A-4	**F**
C1054	A-4	**F**
C1056	A-4	**F**
C1061	C-2	**F**
C1062	C-2	**F**
C1082	B-7	**C**
C1101	C-4	**F**
C1102	B-4	**F**
C1103	B-4	**F**
C1104	C-4	**F**
C1105	B-3	**F**
C1111	B-4	**F**
C1112	B-4	**F**
C1113	B-4	**F**
C1114	A-4	**F**
C1121	B-3	**F**
C1122	B-3	**F**
C1131	B-3	**F**
C1132	C-3	**F**
C1141	B-3	**F**
C1142	B-3	**F**
C1151	B-4	**F**
C1152	B-4	**F**
C1153	A-4	**F**
C1154	A-4	**F**
C1155	B-3	**F**
C1211	C-2	**F**
C1212	D-2	**F**
C1215	C-3	**F**
C1221	D-8	**C**
C1222	C-4	**F**
C1223	D-3	**F**
C1224	D-8	**C**
C1225	D-2	**F**
C1226	D-2	**F**
C1227	D-9	**C**
C1228	D-2	**F**
C1231	C-3	**F**
C1239	C-3	**F**
C1241	B-2	**F**
C1242	B-2	**F**
C1248	B-7	**C**
C1251	A-2	**F**
C1252	A-2	**F**
C1281	A-7	**C**
C1282	A-3	**F**
C1301	C-2	**F**
C1302	C-1	**F**
C1311	C-3	**F**
C1312	D-3	**F**
C1321	C-7	**C**
C1322	C-7	**C**
C1323	C-6	**C**
C1341	D-1	**F**
C1451	A-2	**F**
C1456	A-3	**F**
C1491	A-7	**C**
C2001	A-6	**F**
C2002	C-7	**F**
C2004	B-7	**F**
C2006	C-6	**F**
C2009	A-5	**C**
C2010	A-5	**C**
C2011	B-5	**F**
C2013	B-5	**F**
C2014	B-5	**F**
C2015	B-5	**F**
C2017	C-6	**F**
C2021	C-6	**F**
C2022	B-7	**F**
C2024	B-5	**F**
C2028	C-6	**F**
C2029	C-6	**F**
C2030	B-7	**F**
C2031	C-6	**F**
C2032	B-6	**F**
C2033	D-5	**F**
C2034	C-5	**F**
C2037	A-5	**F**
C2038	B-5	**C**
C2039	B-5	**F**
C2041	B-6	**F**
C2043	C-7	**F**
C2044	C-7	**F**
C2048	B-6	**F**
C2050	A-5	**F**
C2052	B-4	**F**
C2055	C-4	**F**
C2201	E-6	**C**
C2202	E-6	**C**
C2203	E-2	**C**
C2204	E-6	**C**
C2205	E-4	**C**
C2206	E-5	**C**
C2207	E-5	**C**
C2211	E-5	**C**
C2212	E-5	**C**
C2213	E-5	**C**
C2216	D-4	**C**
C2217	D-5	**C**
C2218	D-5	**C**
C2219	D-4	**C**
C2220	D-5	**C**
C2221	D-5	**C**
C2222	D-5	**C**
C2223	D-5	**C**
C2225	D-6	**C**
C2226	E-6	**C**
C2231	D-5	**C**
C2232	D-6	**C**
C3001	C-6	**C**
C3003	C-7	**C**
C3004	C-4	**F**
C3005	B-6	**C**
C3006	B-5	**C**
C3007	B-5	**C**
C3008	C-6	**C**
C3009	C-6	**C**
C3010	C-6	**C**
C3012	C-5	**F**
C3014	B-4	**C**
C3015	C-4	**F**
C3016	B-6	**C**
C3017	B-5	**C**
C3018	C-4	**C**
C3019	C-4	**C**
C3020	C-4	**C**
C3021	C-4	**C**
C3022	B-6	**C**
C3023	C-5	**C**
C3024	B-4	**C**
C3025	C-5	**C**
C3026	C-4	**C**
C3027	C-4	**C**
C3029	C-4	**C**
C3030	D-4	**C**
C3031	C-5	**C**
C3032	C-6	**C**
C3033	D-4	**C**
C3034	B-5	**F**
C3035	D-5	**C**
C3036	D-5	**C**
C3037	C-6	**C**
C3038	C-4	**F**
C3039	C-6	**C**
C3040	D-5	**C**
C3041	C-6	**C**
C3042	C-4	**C**
C3043	B-5	**C**
C3044	B-4	**C**
C3045	B-4	**C**
C3046	B-3	**C**
C3047	B-3	**C**
C3048	C-1	**C**
C3049	C-1	**C**
C3051	B-6	**C**
C3052	B-5	**C**
C3053	C-6	**C**
C3054	C-6	**C**
C3101	E-3	**C**
C3102	D-3	**C**
C3103	D-2	**C**
C3104	D-4	**C**
C3105	D-4	**C**
C3106	D-4	**C**
C3107	D-4	**C**
C3108	D-4	**C**
C3109	E-3	**C**
C3110	D-2	**C**
C3111	D-3	**C**
C3112	D-3	**C**
C3113	E-3	**C**
C3114	D-3	**C**
C3115	D-4	**C**
C3116	D-4	**C**
C3117	E-3	**C**
C3119	E-3	**C**
C3120	D-4	**C**
C3121	E-3	**C**
C3122	E-4	**C**
C3125	E-5	**C**
C3126	E-3	**C**
C3127	E-3	**C**
C3128	E-4	**C**
C3129	E-5	**C**
C3131	E-4	**C**
C3132	F-5	**C**
C3134	E-4	**C**
C3136	C-3	**C**
C3137	E-4	**C**
C3138	E-4	**C**
C3139	E-5	**C**
C3140	E-4	**C**
C3141	E-4	**C**
C3142	E-5	**C**
C3143	E-4	**C**
C3202	D-6	**C**
C3203	E-6	**C**
C3204	D-7	**C**
C3205	D-7	**C**
C3206	E-7	**C**
C3207	D-7	**C**
C3209	D-7	**C**
C3211	D-7	**C**
C3215	D-7	**C**
C3218	E-7	**C**
C3220	D-7	**C**
C3221	E-7	**C**
C3222	E-7	**C**
C3223	E-6	**C**
C3226	D-7	**C**
C3227	E-6	**C**
C3229	D-7	**C**
C3252	B-7	**F**
C3253	B-8	**F**
C3254	B-8	**F**
C3255	B-8	**F**
C3256	B-8	**F**
C3257	C-8	**F**
C3259	B-7	**F**
C3401	D-5	**F**
C3402	D-4	**F**
C3404	D-4	**F**
C3405	D-5	**F**
C3406	C-8	**F**
C3407	D-5	**F**
C3408	C-8	**F**
C3410	E-3	**F**
C3411	D-4	**F**
C3413	E-5	**F**
C3414	F-5	**F**
C3415	D-5	**F**
C3416	E-5	**F**
C3417	E-5	**F**
C3418	E-5	**F**
C3419	F-7	**F**
C3420	D-6	**F**
C3421	D-7	**F**
C3422	E-5	**F**
C3423	D-6	**F**
C3424	F-4	**F**
C3425	D-4	**F**
C3426	D-7	**F**
C3427	E-7	**F**
C3428	D-7	**F**
C3429	E-7	**F**
C3430	D-8	**F**
C3431	D-8	**F**
C3432	D-7	**F**
C3433	F-7	**F**
C3437	D-4	**F**
C3439	D-3	**F**
C3441	D-7	**F**
C3442	D-4	**F**
C3501	B-2	**C**
C3502	B-2	**C**
C3503	B-2	**C**
C3504	B-3	**C**
C3505	C-2	**C**
C3506	C-2	**C**
C3507	B-2	**C**
C3508	C-2	**C**
C3509	C-2	**C**
C3510	C-2	**C**
C3511	C-2	**C**
C3512	B-2	**C**
C3513	B-2	**C**
C3514	C-2	**C**
C3515	C-2	**C**
C3516	C-3	**C**
C3517	B-2	**C**
C3518	C-3	**C**
C3519	C-2	**C**
C3521	D-2	**C**
C3522	C-2	**C**
C3523	C-2	**C**
C3551	C-4	**C**
C3552	C-3	**C**
C3553	D-4	**C**
C3554	D-4	**C**
C3555	C-3	**C**
C3556	C-2	**C**
C3557	C-4	**C**
C3558	D-4	**C**
C3559	D-4	**C**
C3560	D-2	**C**
C3561	E-2	**C**
C3562	E-2	**C**
C3563	E-2	**C**
C3564	E-2	**C**
C3566	D-2	**C**
C3568	D-3	**C**
C3569	E-2	**C**
C3570	C-2	**C**
C4502	D-8	**F**
C4503	D-8	**F**
C4504	C-7	**F**
C4505	C-7	**F**
C4506	C-8	**F**
C4507	C-7	**F**
C4508	C-8	**F**
C4510	C-8	**F**
C4513	D-7	**F**
C4514	D-7	**F**
C5001	E-9	**C**
C5002	E-8	**C**
C5003	E-9	**C**
C5004	E-9	**C**
C5005	E-8	**C**
C5006	E-8	**C**
C5008	E-8	**C**
C5012	E-8	**C**
C5013	E-8	**C**
C5014	E-8	**C**
C5021	F-8	**C**
C5022	F-8	**C**
C5023	F-8	**C**
C5024	F-8	**C**
C6501	F-3	**C**
C6502	F-6	**F**
C6510	D-6	**C**
C6511	F-3	**C**
Resistor		
R601	D-2	**F**
R602	E-2	**F**
R603	E-2	**F**
R604	F-2	**F**
R605	F-2	**F**
R606	F-2	**F**
R608	E-2	**F**
R609	E-2	**F**
R610	E-3	**F**
R611	E-3	**F**
R612	E-2	**F**
R613	D-2	**F**
R614	E-2	**F**
R615	E-2	**F**
R616	E-3	**F**
R617	E-3	**F**
R618	F-2	**F**
R619	E-1	**F**
R621	D-2	**F**
R622	D-2	**F**
R623	D-2	**F**
R624	D-2	**F**
R625	D-2	**F**
R626	F-2	**F**
R627	D-2	**F**
R628	D-3	**F**
R629	D-2	**F**
R630	D-2	**F**
R631	D-3	**F**
R632	D-3	**F**
R633	D-3	**F**
R634	E-3	**F**
R635	E-3	**F**
R636	F-2	**F**
R638	E-3	**F**
R639	E-3	**F**
R640	E-3	**F**
R642	D-3	**F**
R643	F-2	**F**
R644	D-3	**F**
R647	F-2	**F**
R648	D-4	**F**
R649	D-3	**F**
R650	D-3	**F**
R651	E-1	**F**
R657	E-1	**F**
R1001	B-8	**C**
R1002	A-8	**C**
R1005	A-8	**C**
R1011	B-2	**F**
R1012	B-2	**F**
R1013	B-2	**F**
R1014	B-2	**F**
R1015	B-2	**F**
R1021	B-2	**F**
R1022	B-2	**F**
R1023	B-2	**F**
R1024	B-2	**F**
R1025	B-2	**F**
R1031	B-2	**F**
R1032	B-2	**F**
R1033	B-2	**F**
R1034	B-2	**F**
R1035	B-2	**F**
R1036	B-2	**F**
R1041	B-2	**F**
R1042	B-2	**F**
R1043	B-2	**F**
R1044	B-2	**F**
R1045	B-2	**F**
R1051	A-4	**F**
R1052	A-4	**F**
R1053	A-4	**F**
R1054	A-4	**F**
R1055	A-4	**F**
R1056	A-4	**F**
R1101	C-4	**F**
R1103	B-4	**F**
R1104	B-3	**F**
R1111	B-4	**F**
R1112	A-4	**F**
R1113	B-3	**F**
R1114	B-3	**F**
R1116	A-4	**F**
R1121	B-3	**F**
R1131	B-3	**F**
R1141	B-3	**F**
R1151	B-4	**F**
R1152	A-4	**F**
R1153	B-3	**F**
R1154	B-3	**F**
R1155	A-3	**F**
R1156	A-4	**F**
R1161	B-4	**F**
R1221	C-2	**F**
R1301	C-2	**F**
R1302	C-1	**F**
R1303	C-1	**F**
R1304	C-1	**F**
R1305	C-2	**F**
R1306	B-1	**F**
R1311	C-1	**F**
R1312	C-3	**F**
R1322	D-8	**C**
R1323	C-6	**C**
R1333	C-3	**F**
R1341	C-1	**F**
R1343	C-2	**F**
R1344	C-2	**F**
R1345	C-1	**F**
R1349	D-8	**C**
R1401	C-8	**C**
R1402	C-8	**C**
R1425	C-8	**C**
R1451	A-2	**F**
R1452	A-2	**F**
R1453	A-2	**F**
R1454	A-2	**F**
R1455	A-3	**F**
R1456	A-2	**F**
R1457	A-2	**F**
R1458	A-3	**F**
R1481	A-2	**F**
R1482	A-2	**F**
R1483	B-2	**F**
R1484	B-2	**F**
R1491	A-7	**C**
R1492	A-7	**C**
R1493	A-7	**C**
R1494	A-7	**C**
R2001	C-7	**F**
R2002	C-5	**F**
R2003	B-6	**F**
R2004	C-5	**F**
R2005	C-6	**F**
R2006	C-6	**F**
R2007	D-6	**F**
R2008	C-5	**F**
R2009	B-7	**F**
R2010	F-4	**F**
R2011	C-7	**F**
R2012	D-6	**F**
R2013	C-6	**F**
R2014	B-5	**F**
R2015	B-6	**F**
R2016	B-6	**F**
R2017	C-6	**F**
R2019	C-5	**F**
R2020	B-2	**C**
R2021	C-6	**F**
R2022	C-7	**F**
R2023	D-5	**F**
R2024	B-7	**F**
R2025	B-5	**F**
R2026	F-7	**F**
R2027	B-6	**F**
R2028	B-7	**F**
R2029	C-5	**F**
R2030	B-6	**F**
R2032	C-7	**F**
R2034	A-5	**F**
R2036	C-5	**F**
R2037	C-5	**F**
R2038	A-6	**F**
R2039	A-5	**F**
R2040	B-5	**F**
R2041	B-5	**F**
R2042	B-5	**F**
R2043	C-5	**F**
R2044	B-5	**F**
R2048	B-5	**F**
R2049	B-5	**F**
R2050	C-7	**F**
R2051	B-5	**F**
R2052	B-5	**F**
R2053	C-4	**F**
R2054	C-4	**F**
R2055	B-5	**F**
R2057	B-6	**F**
R2058	A-5	**F**
R2059	C-7	**F**
R2060	D-5	**F**
R2062	B-7	**F**
R2063	B-6	**F**
R2064	A-5	**F**
R2065	C-6	**F**
R2066	B-6	**F**
R2069	B-6	**F**
R2071	E-2	**C**
R2072	B-7	**F**
R2073	D-5	**F**
R2074	D-5	**F**
R2075	B-6	**F**
R2076	C-5	**F**
R2077	C-5	**F**
R2078	B-6	**F**
R2081	B-5	**F**
R2082	C-5	**F**
R2083	D-5	**F**
R2084	D-5	**F**
R2085	D-5	**F**
R2086	C-5	**F**
R2087	C-5	**F**
R2088	B-6	**F**
R2089	B-7	**F**
R2090	B-7	**F**
R2091	B-7	**F**
R2092	C-6	**F**
R2093	B-6	**F**
R2094	D-6	**F**
R2097	B-6	**F**
R2098	B-6	**F**
R2101	C-6	**F**
R2102	C-6	**F**
R2103	C-6	**F**
R2104	C-5	**F**
R2105	D-5	**F**
R2106	C-6	**F**
R2109	D-5	**F**
R2110	C-6	**F**
R2111	C-5	**F**
R2112	C-7	**F**
R2113	A-5	**C**
R2114	A-5	**C**
R2115	C-6	**F**
R2116	C-6	**F**
R2117	C-5	**F**
R2118	C-6	**F**
R2119	C-6	**F**
R2124	C-6	**F**
R2125	C-6	**F**
R2126	C-6	**F**
R2127	C-5	**F**
R2129	C-5	**F**
R2132	C-5	**F**
R2133	C-5	**F**
R2136	D-5	**F**
R2137	D-5	**F**
R2138	D-5	**F**
R2139	C-5	**F**
R2142	D-6	**F**
R2143	C-7	**F**
R2146	C-5	**F**
R2161	B-7	**F**
R2162	C-7	**F**
R2164	B-7	**F**
R2165	C-5	**F**
R2167	C-5	**F**
R2168	C-5	**F**
R2169	C-5	**F**
R2170	B-7	**F**
R2171	C-5	**F**
R2172	C-5	**F**
R2173	C-5	**F**
R2174	C-5	**F**
R2175	C-5	**F**
R2176	D-5	**F**
R2178	C-6	**F**
R2182	B-5	**F**
R2185	C-4	**F**
R2186	B-7	**F**
R2187	C-5	**F**
R2188	D-4	**F**
R2189	D-4	**F**
R2194	B-7	**F**
R2195	C-5	**F**
R2201	E-3	**C**
R2202	E-6	**C**
R2203	E-6	**C**
R2204	E-6	**C**
R2205	E-6	**C**
R2206	E-6	**C**
R2207	E-6	**C**
R2208	E-5	**C**
R2209	E-6	**C**
R2210	E-5	**C**
R2211	E-5	**C**
R2212	E-5	**C**
R2213	D-5	**C**
R2214	E-5	**C**
R2216	D-5	**C**
R2219	D-5	**C**
R2222	D-6	**C**
R2224	D-6	**C**
R2225	E-6	**C**
R2233	D-6	**C**
R3001	B-4	**C**
R3002	B-6	**C**
R3004	C-6	**C**
R3005	B-3	**C**
R3006	C-4	**C**
R3007	D-4	**C**
R3008	C-6	**C**
R3011	B-5	**C**
R3012	B-5	**C**
R3013	E-3	**C**
R3015	B-3	**C**
R3016	C-4	**C**
R3017	C-4	**C**
R3019	E-4	**C**
R3020	E-4	**C**
R3021	D-4	**C**
R3022	D-4	**C**
R3023	D-4	**C**
R3024	D-4	**C**
R3030	D-6	**C**
R3031	D-5	**C**
R3032	C-5	**C**
R3033	C-5	**C**
R3034	B-5	**C**
R3035	B-3	**C**
R3036	B-5	**C**
R3037	B-3	**C**
R3041	B-5	**C**
R3101	D-6	**C**
R3102	D-6	**C**
R3103	D-3	**C**
R3104	D-6	**C**
R3105	E-3	**C**
R3106	E-3	**C**
R3107	D-4	**C**
R3108	D-4	**C**
R3109	D-4	**C**
R3110	D-3	**C**
R3111	E-3	**C**
R3112	E-3	**C**
R3113	D-3	**C**
R3114	E-3	**C**
R3115	C-4	**C**
R3116	E-3	**C**
R3117	E-4	**C**
R3118	D-4	**C**
R3119	E-4	**C**
R3120	E-4	**C**
R3122	E-4	**C**
R3124	E-4	**C**
R3125	C-4	**C**
R3126	C-4	**C**
R3127	C-4	**C**
R3128	E-4	**C**
R3129	D-3	**C**
R3130	D-3	**C**
R3131	E-3	**C**
R3132	E-3	**C**
R3133	E-3	**C**
R3136	E-3	**C**
R3137	E-3	**C**
R3138	E-3	**C**
R3149	E-4	**C**
R3151	D-6	**C**
R3201	E-7	**C**
R3202	C-8	**F**
R3203	D-7	**C**
R3204	D-7	**C**
R3205	D-7	**C**
R3209	E-7	**C**
R3210	E-7	**C**
R3211	E-7	**C**
R3212	E-7	**C**
R3213	E-7	**C**
R3215	E-7	**C**
R3216	E-7	**C**
R3217	E-7	**C**
R3218	B-8	**F**
R3229	D-7	**C**
R3251	B-8	**F**
R3252	B-8	**F**
R3253	B-8	**F**
R3254	B-8	**F**
R3255	B-8	**F**
R3256	B-8	**F**
R3257	B-8	**F**
R3258	B-8	**F**
R3259	A-8	**F**
R3401	E-7	**F**
R3402	D-7	**F**
R3403	E-4	**F**
R3404	D-4	**F**
R3405	E-5	**F**
R3406	F-6	**F**
R3407	D-4	**F**
R3408	E-5	**F**
R3409	E-5	**F**
R3410	E-5	**F**
R3411	E-5	**F**
R3412	F-5	**F**
R3413	E-5	**F**
R3414	D-4	**F**
R3415	E-6	**F**
R3417	F-4	**F**
R3418	D-5	**F**
R3419	D-4	**F**
R3420	D-7	**F**
R3421	E-4	**F**
R3423	F-7	**F**
R3424	D-4	**F**
R3426	F-4	**F**
R3427	D-4	**F**
R3428	D-5	**F**
R3430	D-7	**F**
R3431	D-4	**F**
R3433	E-7	**F**
R3434	E-7	**F**
R3435	D-7	**F**
R3436	F-3	**F**
R3437	F-4	**F**
R3438	D-5	**F**
R3439	D-4	**F**
R3440	D-4	**F**
R3441	F-6	**F**
R3443	D-5	**F**
R3444	D-4	**F**
R3445	E-4	**F**
R3446	D-4	**F**
R3447	D-4	**F**
R3448	D-5	**F**
R3449	E-3	**F**
R3450	E-4	**F**
R3451	D-7	**F**
R3452	C-8	**F**
R3453	F-4	**F**
R3454	E-7	**F**
R3455	C-8	**F**
R3456	D-5	**F**
R3458	D-8	**F**
R3460	E-7	**F**
R3461	E-4	**F**
R3462	F-4	**F**
R3463	F-4	**F**
R3494	E-6	**F**
R3495	E-7	**F**
R3496	E-4	**F**
R3497	E-7	**F**
R3498	E-7	**F**
R3501	B-3	**C**
R3503	D-2	**C**
R3504	D-2	**C**
R3505	C-2	**C**
R3506	C-2	**C**
R3507	C-2	**C**
R3508	C-2	**C**
R3509	D-2	**C**
R3515	C-2	**C**
R3551	C-3	**C**
R3552	C-3	**C**
R3553	C-4	**C**
R3554	D-4	**C**
R3555	D-3	**C**
R3556	D-4	**C**
R3557	C-2	**C**
R3558	C-3	**C**
R3560	C-2	**C**
R3561	C-2	**C**
R3562	E-2	**C**
R3563	E-2	**C**
R3564	D-2	**C**
R3565	D-2	**C**
R3568	D-4	**C**
R3580	B-2	**C**
R3591	B-3	**C**
R3592	B-3	**C**
R3593	B-3	**C**
R3594	B-3	**C**
R4501	C-7	**F**
R5001	E-8	**C**
R5004	E-8	**C**
R5006	E-8	**C**
R5007	F-8	**C**
R5008	F-8	**C**
R5009	F-8	**C**
R5010	F-8	**C**
R5011	F-8	**C**
R5012	F-8	**C**
R5015	E-9	**C**
R6501	F-4	**C**
R6502	F-4	**C**
R6503	F-4	**C**
R6504	E-2	**C**
R6506	E-2	**C**
R6901	B-5	**C**
R6902	B-5	**C**

ADDRESS INFORMATION C…COMPONENT SIDE F…FOIL SIDE

12.10. CAMERA C.B.A.

NOTE:MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


(VEP23536A)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
IC702
PS201
IC203
FP701
Q703
IC204
Q203
IC301
FP301
QR303
IC202
IC704
IC201
X201
Q701
IC703
IC302
IC701
PP301
IC303
X301
QR201
Q201
(COMPONENT SIDE)
(FOIL SIDE)

PV-DV852
CAMERA C.B.A.

Camera C.B.A.											
Integrated Circuit		D391	A-3	C309	C-2	C759	E-8	R352	B-4	R779	D-9
IC201	D-5	D392	A-4	C310	C-2	**Resistor**		R369	B-7	R780	D-9
IC202	E-7	D393	A-3	C311	B-5	R203	E-5	R372	B-3	R781	D-8
IC203	D-4	D394	A-4	C312	A-2	R204	D-5	R377	B-5	R786	D-8
IC204	C-3	D395	A-4	C313	C-2	R206	F-7	R419	A-5	R787	D-8
IC301	B-2	**Crystal Ocillator**		C314	A-7	R207	F-6	R420	B-3	R788	E-8
IC302	B-6	X201	D-6	C315	A-5	R208	F-6	R701	C-7	R789	D-9
IC303	A-8	X301	A-7	C316	C-7	R209	D-5	R702	B-8	R790	D-8
IC701	B-8	**Coil**		C317	A-4	R212	D-5	R703	C-7	R793	E-1
IC702	E-2	L201	F-7	C318	A-1	R213	D-5	R704	C-7	R794	F-1
IC703	C-8	L202	E-7	C319	C-5	R218	D-7	R705	B-8	R797	D-8
IC704	E-8	L203	D-5	C320	C-1	R219	E-5	R706	B-7	R799	F-2
Transistor		L205	C-5	C321	A-2	R220	E-6	R707	D-8		
Q201	E-6	L301	B-4	C322	C-1	R221	D-7	R708	D-8		
Q203	C-4	L302	C-1	C323	C-2	R222	E-6	R709	E-1		
Q701	D-8	L303	A-6	C324	A-8	R223	D-6	R710	D-1		
Q702	E-1	L304	B-5	C325	A-1	R224	D-7	R712	C-8		
Q703	D-1	L305	C-1	C326	A-1	R225	D-7	R714	B-8		
Transistor & Resistor		L306	B-1	C327	B-5	R226	C-3	R715	B-8		
QR201	F-7	L307	C-4	C328	B-4	R227	C-3	R716	C-8		
QR303	B-3	L308	C-2	C329	B-7	R228	D-7	R717	D-8		
QR304	B-7	L310	B-4	C330	B-7	R229	D-7	R718	D-8		
QR701	F-1	L701	E-1	C331	C-7	R230	D-7	R719	D-8		
QR702	E-1	L702	C-7	C332	B-4	R231	D-7	R720	B-8		
QR704	E-1	L703	D-1	C333	A-3	R232	D-7	R721	B-8		
Test Point		LB201	D-6	C334	C-7	R236	F-7	R722	D-8		
CL201	D-6	LB202	B-5	C335	C-3	R240	A-3	R723	D-7		
CL203	E-6	LB208	C-3	C336	B-4	R241	A-3	R724	D-7		
CL301	A-8	LB209	C-4	C701	B-7	R242	A-2	R725	D-8		
CL302	A-8	LB301	B-4	C702	C-7	R247	D-5	R726	F-1		
CL303	A-8	LB302	C-1	C703	C-7	R301	B-3	R727	F-1		
CL304	B-7	LB303	B-5	C704	B-7	R304	A-6	R728	E-1		
CL305	A-8	LB304	C-1	C705	C-7	R305	B-4	R729	F-1		
CL306	A-7	LB305	B-1	C706	B-8	R306	A-7	R730	E-1		
CL307	A-8	LB306	B-4	C707	C-8	R307	A-6	R731	F-1		
CL309	D-7	LB307	C-8	C708	B-8	R308	B-4	R732	F-2		
CL310	A-7	**Capacitor**		C709	B-8	R309	A-5	R733	F-2		
CL311	A-2	C201	F-6	C710	C-8	R310	B-4	R734	E-3		
CL318	A-2	C202	E-7	C711	C-8	R311	B-4	R735	E-3		
CL319	B-1	C203	F-3	C712	B-8	R312	B-5	R736	D-1		
CL320	C-1	C204	F-7	C713	D-8	R313	C-6	R737	D-8		
CL321	B-1	C205	D-8	C714	D-7	R314	C-6	R738	F-1		
CL322	B-1	C206	D-5	C715	E-3	R315	C-6	R739	B-8		
CL323	A-1	C207	E-7	C716	F-1	R316	A-7	R740	C-7		
CL324	A-1	C208	C-5	C717	F-1	R317	A-7	R741	F-8		
CL325	C-5	C209	E-3	C718	F-3	R318	C-6	R742	E-1		
CL326	A-2	C210	C-4	C719	F-2	R319	A-7	R743	E-1		
CL327	A-2	C212	E-5	C720	F-2	R320	B-4	R744	C-7		
CL329	B-8	C213	D-6	C721	E-1	R321	A-7	R745	D-8		
CL330	C-7	C214	F-6	C722	E-1	R322	C-7	R746	D-8		
CL331	D-9	C215	E-5	C723	D-8	R323	C-7	R748	F-9		
CL332	C-5	C216	E-6	C724	C-8	R328	A-7	R749	F-8		
CL391	C-3	C217	E-4	C725	C-8	R329	A-7	R750	F-8		
CL701	E-1	C218	E-4	C727	F-8	R330	B-5	R751	F-8		
CL702	E-1	C219	E-7	C728	F-8	R331	B-5	R752	F-8		
CL703	E-8	C220	E-4	C729	F-8	R332	C-6	R753	C-2		
CL704	F-8	C221	E-3	C730	F-8	R333	A-7	R754	F-9		
RL301	A-2	C222	E-3	C731	D-7	R334	B-8	R755	F-8		
RL302	A-3	C223	E-3	C734	F-9	R335	A-1	R756	D-8		
RL303	A-3	C225	D-7	C735	F-8	R337	B-8	R757	F-3		
RL308	C-1	C226	D-7	C737	F-9	R338	A-8	R758	C-8		
RL309	C-1	C227	D-3	C738	F-9	R339	A-8	R759	D-1		
RL701	F-2	C228	D-6	C743	D-1	R340	A-2	R760	F-9		
RL702	F-2	C229	F-6	C745	E-8	R341	A-6	R761	C-1		
Connector		C230	E-3	C747	D-9	R342	A-2	R762	C-1		
FP301	A-4	C231	D-6	C748	E-8	R343	A-6	R763	C-1		
FP701	D-2	C301	B-3	C750	D-9	R344	B-7	R764	C-1		
PP301	C-9	C302	C-1	C751	E-9	R345	C-1	R765	E-9		
PS201	F-4	C303	C-2	C752	E-8	R346	A-8	R768	E-8		
Diode		C304	C-3	C753	D-9	R347	B-4	R770	E-9		
D201	E-3	C305	C-4	C754	D-8	R348	B-7	R771	D-8		
D301	C-7	C306	C-1	C755	E-8	R349	B-7	R776	D-8		
D302	A-5	C307	A-7	C757	E-8	R350	C-7	R777	D-9		
D303	C-5	C308	A-7	C758	E-8	R351	B-3	R778	D-8		

ADDRESS INFORMATION

13 CHECKING POINT OF THE CSP IC

13.1. CHECKING POINT TABLE

Check Point of the IC301

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	NC	———	—	—	
2	NC	———	—	—	
3	VDDIOCST (R)	———	—	—	
4	VSS	———	—	—	
5	ADIN0	IC203-3	D-4	WF-86	CAMERA C.B.A. (C)
6	ADIN1	IC203-4	D-4	WF-86	CAMERA C.B.A. (C)
7	ADIN2	IC203-5	D-4	WF-86	CAMERA C.B.A. (C)
8	ADIN3	IC203-6	D-4	WF-86	CAMERA C.B.A. (C)
9	ADIN4	IC203-7	D-4	WF-86	CAMERA C.B.A. (C)
10	ADIN5	IC203-8	D-4	WF-86	CAMERA C.B.A. (C)
11	ADIN6	IC203-9	D-4	WF-86	CAMERA C.B.A. (C)
12	ADIN7	IC203-10	D-4	WF-86	CAMERA C.B.A. (C)
13	ADIN8	IC203-11	D-4	WF-86	CAMERA C.B.A. (C)
14	ADIN9	IC203-12	D-4	WF-86	CAMERA C.B.A. (C)
15	VSS	———	—	—	
16	VDD 15 (0)	———	—	—	
17	CCD HD	IC202-36	E-7	WF-213	CAMERA C.B.A. (F)
18	CCD VD	IC202-29	E-7	WF-161	CAMERA C.B.A. (F)
19	LVD	IC202-30	E-7	WF-212	CAMERA C.B.A. (F)
20	LLVD	IC202-31	E-7	WF-212	CAMERA C.B.A. (F)
21	FI	IC202-32	E-7	WF-1	CAMERA C.B.A. (F)
22	FCK	CL201	D-6	WF-67	CAMERA C.B.A. (F)
23	CLKRST	———	—	—	
24	POR	R301 (LEFT)	B-3	WF-59	CAMERA C.B.A. (C)
25	VDDIOCST (1)	———	—	—	
26	VSS	———	—	—	
27	LINPWMOUT	IC701-12	B-8	WF-1	CAMERA C.B.A. (F)
28	HZAPWMOUT	IC701-10	B-8	WF-1	CAMERA C.B.A. (F)
29	HZABPWMOUT	IC701-5	B-8	WF-1	CAMERA C.B.A. (F)
30	IRISPWM	IC701-1	B-8	WF-136	CAMERA C.B.A. (F)
31	IRISCLOSE	CL701	E-1	WF-1	CAMERA C.B.A. (C)
32	FCA	IC702-53	E-2	WF-14	CAMERA C.B.A. (C)
33	FCB	IC702-54	E-2	WF-15	CAMERA C.B.A. (C)
34	F2C	IC702-55	E-2	WF-16	CAMERA C.B.A. (C)
35	TRUEHD	IC202-32	E-7	WF-1	CAMERA C.B.A. (F)
36	NOPWM	RL302	A-3	WF-1	CAMERA C.B.A. (C)
37	SIG	IC702-50	E-2	WF-1	CAMERA C.B.A. (C)
38	ZACOMP	IC702-14	E-2	WF-3	CAMERA C.B.A. (C)
39	ZBCOMP	IC702-12	E-2	WF-2	CAMERA C.B.A. (C)
40	ZCCOMP	IC702-13	E-2	WF-4	CAMERA C.B.A. (C)
41	ZCOMP	IC702-11	E-2	WF-4	CAMERA C.B.A. (C)
42	IRISOPEN	CL702	E-1	WF-1	CAMERA C.B.A. (C)
43	TBUSO	———	—	—	
44	PDOWN	QR303-B	B-3	WF-1	CAMERA C.B.A. (C)
45	VDDIOCST (2)	———	—	—	
46	VSS	———	—	—	
47	TBUS1	———	—	—	
48	TBUS2	———	—	—	
49	TBUS3	———	—	—	
50	TBUS4	———	—	—	
51	TBUS5	———	—	—	
52	TBUS6	———	—	—	
53	TBUS7	———	—	—	
54	TBUS8	———	—	—	
55	TBUS9	———	—	—	
56	TBUS10	———	—	—	
57	TBUS11	———	—	—	
58	VSS	———	—	—	
59	VDDIOCST (3)	———	—	—	
60	PLLAVDD	———	—	—	

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
61	TCPOUT	———	—	—	
62	PLLAVSS	———	—	—	
63	NC	———	—	—	
64	NC	———	—	—	
65	VSS	———	—	—	
66	VDDVTR (A)	———	—	—	
67	TESTIN 0	———	—	—	
68	DDF CKPLL	R241 (UPPER)	A-3	WF-112	CAMERA C.B.A. (C)
69	TESTIN 1	———	—	—	
70	DDF CK20	RL301	A-2	WF-112	CAMERA C.B.A. (C)
71	TESTIN 2	———	—	—	
72	DDF CK21	CL303	A-8	WF-112	CAMERA C.B.A. (F)
73	TESTIN 3	———	—	—	
74	DDF CK	R242 (UPPER)	A-2	WF-112	CAMERA C.B.A. (C)
75	TESTIN 4	———	—	—	
76	VDD15 (1)	———	—	—	
77	TESTIN 5	———	—	—	
78	TESTIN 6	———	—	—	
79	VTR45M	R340 (RIGHT)	A-2	WF-69	CAMERA C.B.A. (C)
80	TESTIN 7	———	—	—	
81	TESTIN8	———	—	—	
82	TESTIN9	———	—	—	
83	TESTIN10	———	—	—	
84	VDDVTR (0)	———	—	—	
85	VSS	———	—	—	
86	INV	———	—	—	
87	INH1	———	—	—	
88	COUT0	CL326	A-2	WF-53	CAMERA C.B.A. (C)
89	COUT1	CL327	A-2	WF-53	CAMERA C.B.A. (C)
90	COUT2	———	—	—	
91	COUT3	———	—	—	
92	VDDVTR (1)	———	—	—	
93	VSS	———	—	—	
94	COUT4	———	—	—	
95	COUT5	———	—	—	
96	COUT6	———	—	—	
97	COUT7	———	—	—	
98	YOUT0	CL323	A-1	WF-45	CAMERA C.B.A. (C)
99	VSS	———	—	—	
100	VDDVTR (2)	———	—	—	
101	YOUT1	CL324	A-1	WF-45	CAMERA C.B.A. (C)
102	YOUT2	———	—	—	
103	YOUT3	———	—	—	
104	YOUT4	———	—	—	
105	YOUT5	———	—	—	
106	YOUT6	———	—	—	
107	VDDVTR (3)	———	—	—	
108	YOUT7	———	—	—	
109	VSS	———	—	—	
110	TESTOT0	———	—	—	
111	TESTOT1	———	—	—	
112	TESTOT2	———	—	—	
113	VDD15 (2)	———	—	—	
114	TESTOT3	———	—	—	
115	TESTOT4	———	—	—	
116	VDDVTR (4)	———	—	—	
117	VSS	———	—	—	
118	TESTOT5	———	—	—	
119	TESTOT6	———	—	—	
120	TESTOT7	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC301

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	TESTOUT8	——	—	—	
122	TESTOUT9	——	—	—	
123	VDDVTR (5)	——	—	—	
124	VSS	——	—	—	
125	TESTOUT12	——	—	—	
126	TESTOUT11	——	—	—	
127	TESTOUT10	——	—	—	
128	NC	——	—	—	
129	NC	——	—	—	
130	NC	——	—	—	
131	TESTOUT13	——	—	—	
132	TMD	CL321	B-1	WF-1	CAMERA C.B.A. (C)
133	TCLK	CL322	B-1	WF-68	CAMERA C.B.A. (C)
134	TRST	R420 (LOWER)	B-3	WF-1	CAMERA C.B.A. (C)
135	TDI	CL320	C-1	WF-1	CAMERA C.B.A. (C)
136	TDO	CL319	B-1	WF-1	CAMERA C.B.A. (C)
137	MRGAPIX	——	—	—	
138	BLKEND	——	—	—	
139	DT4DSTB	——	—	—	
140	BUSY	——	—	—	
141	PSEL	——	—	—	
142	MINTEST	——	—	—	
143	SCANNT	——	—	—	
144	DRAM18VDZ	——	—	—	
145	VSS	——	—	—	
146	VDDVTR (6)	——	—	—	
147	VSS	——	—	—	
148	TESTOT14	——	—	—	
149	TESTOT15	——	—	—	
150	TESTOT16	——	—	—	
151	TESTOT17	——	—	—	
152	TESTOT18	——	—	—	
153	TESTOT19	——	—	—	
154	TESTOT20	——	—	—	
155	TESTOT21	——	—	—	
156	TESTOT22	——	—	—	
157	TESTOT23	——	—	—	
158	VDDVTR (7)	——	—	—	
159	VSS	——	—	—	
160	TESTOT24	——	—	—	
161	TESTOT25	——	—	—	
162	TESTOT26	——	—	—	
163	TESTOT27	——	—	—	
164	TESTOT28	——	—	—	
165	TESTOT29	——	—	—	
166	TESTOT30	——	—	—	
167	TESTOT31	——	—	—	
168	VSS	——	—	—	
169	VDD15 (3)	——	—	—	
170	TESTOT32	——	—	—	
171	TESTOT33	——	—	—	
172	TESTOT34	——	—	—	
173	VDDVTR (8)	——	—	—	
174	VSS	——	—	—	
175	TESTOT35	——	—	—	
176	TESTOT36	——	—	—	
177	TESTOT37	——	—	—	
178	TESTOT38	——	—	—	
179	TESTOT39	——	—	—	
180	TESTOT40	——	—	—	

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
181	TESTOT41	——	—	—	
182	TESTOT42	——	—	—	
183	TESTOT43	——	—	—	
184	TESTOT44	——	—	—	
185	TESTOT45	——	—	—	
186	VSS	——	—	—	
187	VDDVTR (9)	——	—	—	
188	DRAM18VDZ	——	—	—	
189	VSS	——	—	—	
190	TESTOT46	——	—	—	
191	NC	——	—	—	
192	NC	——	—	—	
193	NC	——	—	—	
194	VDDVTR (8)	——	—	—	
195	TESTOT47	——	—	—	
196	TESTOT48	——	—	—	
197	TESTOT49	——	—	—	
198	TESTOT50	——	—	—	
199	TESTOT51	——	—	—	
200	TESTOT52	——	—	—	
201	TESTOT53	——	—	—	
202	TSTHD	RL309	C-1	WF-213	CAMERA C.B.A. (C)
203	TG3HD	RL308	C-1	WF-213	CAMERA C.B.A. (C)
204	TESTIN11	——	—	—	
205	TESTIN12	——	—	—	
206	TESTIN13	——	—	—	
207	DRAM33VDD	——	—	—	
208	VDD15 (4)	——	—	—	
209	DRAM18VDS	——	—	—	
210	VSS	——	—	—	
211	TESTIN14	——	—	—	
212	TESTIN15	——	—	—	
213	TESTIN16	——	—	—	
214	TESTIN17	——	—	—	
215	TESTIN18	——	—	—	
216	TST0	——	—	—	
217	TST1	——	—	—	
218	TST2	——	—	—	
219	TST3	——	—	—	
220	TST4	——	—	—	
221	DRAM18VDS	——	—	—	
222	VSS	——	—	—	
223	VDDVTR (10)	——	—	—	
224	VSS	——	—	—	
225	VDDCU (0)	——	—	—	
226	DBADR0	——	—	—	
227	DBADR1	——	—	—	
228	DBADR2	——	—	—	
229	DBADR3	——	—	—	
230	DBADR4	——	—	—	
231	DBADR5	——	—	—	
232	DBADR6	——	—	—	
233	DBADR7	——	—	—	
234	DBADR8	——	—	—	
235	DBADR9	——	—	—	
236	DBADR10	——	—	—	
237	DBADR11	——	—	—	
238	DBADR12	——	—	—	
239	VSS	——	—	—	
240	VDD15 (5)	——	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC301

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
241	CS	———	—	—	
242	ASTB	———	—	—	
243	DSTB	———	—	—	
244	RE	———	—	—	
245	RW	———	—	—	
246	MSEL	———	—	—	
247	V1V2	———	—	—	
248	BEND	———	—	—	
249	DBADR13	———	—	—	
250	DBADR14	———	—	—	
251	DBADR15	———	—	—	
252	TESTIN19	———	—	—	
253	VDDCU (1)	———	—	—	
254	VSS	———	—	—	
255	NC	———	—	—	
256	NC	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC302

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	NC	———	—	—	
2	VTR SU	———	—	—	
3	TVR SCK	———	—	—	
4	(P23)	———	—	—	
5	(27)	———	—	—	
6	B COMP	IC702-49	E-2	WF-2	CAMERA C.B.A. (C)
7	(P35)	———	—	—	
8	OIS/LENSDR	R331 (LOWER)	B-5	WF-1	CAMERA C.B.A. (F)
9	(P12)	———	—	—	
10	EE CS	CL301	A-8	WF-1	CAMERA C.B.A. (F)
11	CG CS	IC202-4	E-7	WF-1	CAMERA C.B.A. (F)
12	EV DD	———	—	—	
13	CAMRTN	R377 (LOWER)	B-5	WF-1	CAMERA C.B.A. (F)
14	RTNFRP	———	—	—	
15	NC	———	—	—	
16	Q START	———	—	—	
17	HSZ SW/YAMATEST	R309 (UPPER)	A-5	WF-40	CAMERA C.B.A. (F)
18	YAMAGATA-W	R307 (UPPER)	A-6	WF-1	CAMERA C.B.A. (F)
19	(P161)	———	—	—	
20	(P165)	IC703-1	C-8	WF-1	CAMERA C.B.A.(F)
21	XT1	———	—	—	
22	XT2	———	—	—	
23	(P101)	———	—	—	
24	(P105)	———	—	—	
25	EVSS	———	—	—	
26	(P151)	———	—	—	
27	(P154)	———	—	—	
28	(P155)	———	—	—	
29	NC	———	—	—	
30	(P156)	———	—	—	
31	V1V2	———	—	—	
32	(P86)	———	—	—	
33	(P130)	———	—	—	
34	(P132)	———	—	—	
35	(P135)	———	—	—	
36	(P141)	———	—	—	
37	(P145)	———	—	—	
38	OIS GYRO-X	R351 (UPPER)	B-3	WF-1	CAMERA C.B.A. (C)
39	MREF	IC702-10	E-2	WF-7	CAMERA C.B.A. (C)
40	ZMA	RL702	F-2	WF-8	CAMERA C.B.A. (C)
41	OIS HALL-X	IC704-31	E-8	WF-1	CAMERA C.B.A. (F)
42	FNO	IC702-20	E-2	WF-161	CAMERA C.B.A. (C)
43	NC	———	—	—	
44	AVREF	R322 (LEFT)	C-7	WF-1	CAMERA C.B.A. (F)
45	AVSS	———	—	—	
46	VSS	———	—	—	
47	AD1	———	—	—	
48	AD5	———	—	—	
49	BVSS	———	—	—	
50	AD11	———	—	—	
51	AD15	———	—	—	
52	(VSUBCNT)	———	—	—	
53	(CLKOUT:OPEN)	———	—	—	
54	BST	R318 (LOWER)	C-6	WF-1	CAMERA C.B.A. (F)
55	EVR SI	R313 (LOWER)	C-6	WF-1	CAMERA C.B.A. (F)
56	EVR SO	CL325	C-5	WF-1	CAMERA C.B.A. (F)
57	EVR SCK	R314 (LOWER)	C-6	WF-14	CAMERA C.B.A. (F)
58	SHOE SI	R332 (LOWER)	C-6	WF-1	CAMERA C.B.A. (F)
59	SHOE SO	R332 (LOWER)	C-6	WF-1	CAMERA C.B.A. (F)
60	ASP/CG SCK	IC202-2	E-7	WF-14	CAMERA C.B.A. (F)
61	ACOMP	IC702-48	E-2	WF-4	CAMERA C.B.A. (C)
62	(P34)	———	—	—	
63	(P120)	———	—	—	
64	(P124)	———	—	—	
65	EE SCK	CL302	A-8	WF-14	CAMERA C.B.A. (F)
66	EE SO	D302 (UPPER)	A-5	WF-1	CAMERA C.B.A. (F)
67	EE SI	CL303	A-8	WF-1	CAMERA C.B.A. (F)
68	EE R/B	IC303-7	A-8	WF-1	CAMERA C.B.A. (F)
69	ZABS	R347 (UPPER)	B-4	WF-40	CAMERA C.B.A. (C)
70	TRIGEND	CL7006	A-1	WF-1	FLASH C.B.A. (F)
71	CAMT	R305 (UPPER)	B-4	WF-35	CAMERA C.B.A. (C)
72	ADJPWM	R343 (LOWER)	A-6	WF-1	CAMERA C.B.A. (F)
73	F OPEN	R333 (RIGHT)	A-7	WF-1	CAMERA C.B.A. (F)
74	CAMVPP	———	—	—	
75	OSC OUT	C307 (UPPER)	A-7	WF-41	CAMERA C.B.A. (F)
76	(P100)	———	—	—	
77	(P104)	———	—	—	
78	(P107)	———	—	—	
79	(P150)	———	—	—	
80	(P152)	———	—	—	
81	(P153)	———	—	—	
82	(P00)	———	—	—	
83	BEND	———	—	—	
84	(P131)	———	—	—	
85	(P136)	———	—	—	
86	(P142)	———	—	—	
87	LED CNT	QR304-B	B-7	WF-131	CAMERA C.B.A. (F)
88	OIS GYRO-Y	R352 (RIGHT)	B-4	WF-131	CAMERA C.B.A. (C)
89	NC	R348 (LEFT)	B-7	WF-131	CAMERA C.B.A. (F)
90	MFVR B	R349 (LEFT)	B-7	WF-1	CAMERA C.B.A. (F)
91	ZMB	RL701	F-2	WF-9	CAMERA C.B.A. (C)
92	OIS HALL-Y	IC704-6	E-8	WF-1	CAMERA C.B.A. (F)
93	VDD	———	—	—	
94	AVDD	———	—	—	
95	UBE	———	—	—	
96	ASTB	———	—	—	
97	AD2	———	—	—	
98	AD6	———	—	—	
99	AD8	———	—	—	
100	AD12	———	—	—	
101	CHAEND	R344 (LOWER)	B-7	WF-1	CAMERA C.B.A. (F)
102	CHARGE	CL7001	B-4	WF-1	FLASH C.B.A. (F)
103	LVD	IC202-30	E-7	WF-58	CAMERA C.B.A. (F)
104	LLVD	IC202-31	E-7	WF-58	CAMERA C.B.A. (F)
105	VIRSERIALOUT	———	—	—	
106	SHOE SCK	CL332	C-5	WF-9	CAMERA C.B.A. (F)
107	(P26)	———	—	—	
108	(P32)	———	—	—	
109	(P36)	———	—	—	
110	OIS/LENSDRSCK	R330 (UPPER)	B-5	WF-1	CAMERA C.B.A. (F)
111	(P126)	———	—	—	
112	OISCS	IC704-43	E-8	WF-1	CAMERA C.B.A. (F)
113	LENSDR CS	IC702-1	E-2	WF-1	CAMERA C.B.A. (C)
114	MENU SET	———	—	—	
115	EERST	CL304	B-7	WF-1	CAMERA C.B.A. (F)
116	AF/MF	R308 (UPPER)	B-4	WF-43	CAMERA C.B.A. (C)
117	MENU	R311 (LEFT)	B-4	WF-40	CAMERA C.B.A. (C)
118	(P162)	———	—	—	
119	OIS SW	R341 (UPPER)	A-6	WF-1	CAMERA C.B.A. (C)
120	VDD	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC302

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	OSC IN	R329 (LOWER)	A-7	WF-1	CAMERA C.B.A. (C)
122	(P182)	———	—	—	
123	OIS SW	———	—	—	
124	EVDD	———	—	—	
125	(P157)	———	—	—	
126	MENU SEL2	R317 (LEFT)	A-7	WF-1	CAMERA C.B.A. (C)
127	(P07)	———	—	—	
128	(P133)	———	—	—	
129	(P137)	———	—	—	
130	(P143)	———	—	—	
131	AFST	———	—	—	
132	IR	Q492-E	A-3	WF-1	MIC C.B.A. (F)
133	MFVR A	R350 (LEFT)	C-7	WF-1	CAMERA C.B.A. (C)
134	FMA	IC702-57	E-2	WF-11	CAMERA C.B.A. (C)
135	FMB	IC702-58	E-2	WF-10	CAMERA C.B.A. (C)
136	DSTB	———	—	—	
137	AD0	———	—	—	
138	AD4	———	—	—	
139	BVDD	———	—	—	
140	AD10	———	—	—	
141	AD14	———	—	—	
142	MEMOEND	———	—	—	
143	WINKEND	———	—	—	
144	MFLEDCNT	———	—	—	
145	ASP/CG SO	IC202-3	E-7	WF-1	CAMERA C.B.A. (F)
146	EVSS	———	—	—	
147	(P33)	———	—	—	
148	(P37)	———	—	—	
149	(P123)	———	—	—	
150	(P127)	———	—	—	
151	ASPCS	IC202-4	E-7	WF-1	CAMERA C.B.A. (F)
152	EVSS	———	—	—	
153	AUTO/MNL	R318 (UPPER)	C-6	WF-1	CAMERA C.B.A. (F)
154	VTRT	———	—	—	
155	(P163)	———	—	—	
156	FLASH SENSOR	CL7005	E-2	WF-1	FLASH C.B.A. (C)
157	RESET	R306 (LEFT)	A-7	WF-1	CAMERA C.B.A. (F)
158	VSS	———	—	—	
159	(P103)	———	—	—	
160	VD	IC202-29	E-7	WF58	CAMERA C.B.A. (F)
161	MANU SEL1	R316 (LEFT)	A-7	WF-1	CAMERA C.B.A. (F)
162	EVSS	———	—	—	
163	CCDHD	———	—	—	
164	(P140)	———	—	—	
165	TRUEHD	IC202-32	E-7	WF-1	CAMERA C.B.A. (F)
166	ZSW	C334 (RIGHT)	C-7	WF-1	CAMERA C.B.A. (F)
167	SHOE DET	R369 (UPPER)	B-7	WF-16	CAMERA C.B.A. (F)
168	R/W	———	—	—	
169	LBE	———	—	—	
170	OISSENSSW	IC451-3	A-3	WF-1	GYRO C.B.A. (F)
171	AD3	———	—	—	
172	AD7	———	—	—	
173	AD9	———	—	—	
174	AD13	———	—	—	
175	SHOEPON H	CL330	C-7	WF-1	CAMERA C.B.A. (F)
176	(47KPULLUP)	R315 (LOWER)	C-6	WF-131	CAMERA C.B.A. (F)
177	EVDD	———	—	—	
178	SS DET	———	—	—	
179	EVDD	———	—	—	
180	(P95)	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC2001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VCC	———	—	—	
2	UNLOAD	RL2202	D-5	WF-1	MAIN C.B.A. (C)
3	LOAD	RL2203	D-5	WF-1	MAIN C.B.A. (C)
4	SPK ON H	IC3002-1	D-3	WF-1	MAIN C.B.A. (F)
5	NC	———	—	—	
6	VCCB0	———	—	—	
7	POS1	R2103 (UPPER)	C-6	WF-1	MAIN C.B.A. (F)
8	POS2	R2102 (UPPER)	C-6	WF-1	MAIN C.B.A. (F)
9	POS3	R2101 (UPPER)	C-6	WF-1	MAIN C.B.A. (F)
10	S TAB SW	R2104 (RIGHT)	C-5	WF-1	MAIN C.B.A. (F)
11	VOICE PS L	IC1001-3	B-4	WF-1	MAIN C.B.A. (F)
12	VSS	———	—	—	
13	KEY IN 1	R2175 (LOWER)	C-5	WF-35	MAIN C.B.A. (F)
14	KEY IN 2	R2173 (RIGHT)	C-5	WF-35	MAIN C.B.A. (F)
15	KEY IN 3	R2171 (RIGHT)	C-5	WF-35	MAIN C.B.A. (F)
16	KEY IN 4	R2168 (RIGHT)	C-5	WF-35	MAIN C.B.A. (F)
17	SCAN1	R2037 (RIGHT)	C-5	WF-43	MAIN C.B.A. (F)
18	SCAN2	R2165 (UPPER)	C-5	WF-43	MAIN C.B.A. (F)
19	VCCB1	———	—	—	
20	SCAN 3	R2036 (UPPER)	C-5	WF-43	MAIN C.B.A. (F)
21	SCAN 4	R2008 (RIGHT)	C-5	WF-43	MAIN C.B.A. (F)
22	T PHT SW2	R2137 (UPPER)	D-5	WF-1	MAIN C.B.A. (F)
23	VSS	———	—	—	
24	T PHT SW1	R2138 (UPPER)	D-5	WF-1	MAIN C.B.A. (F)
25	S PHT SW2	R2133 (UPPER)	C-5	WF-1	MAIN C.B.A. (F)
26	S PHT SW1	R2132 (UPPER)	C-5	WF-1	MAIN C.B.A. (F)
27	VTR LED	QR2010-2	C-4	WF-93	MAIN C.B.A. (F)
28	VCCB1	———	—	—	
29	CAM LED	QR2010-5	C-4	WF-1	MAIN C.B.A. (F)
30	TALLY LED	QR2005-5	D-5	WF-1	MAIN C.B.A. (F)
31	CARD LED	QR2005-2	D-5	WF-1	MAIN C.B.A. (F)
32	CARD PROTECT	R2041 (UPPER)	B-5	WF-1	MAIN C.B.A. (F)
33	MIC ON	Q2007-B	C-5	WF-1	MAIN C.B.A. (F)
34	SNS LED	Q2011-5	A-5	WF-93	MAIN C.B.A. (F)
35	LCD CS	IC901-15	B-2	WF-1	MONITOR C.B.A.
36	LCD RVS	R2042 (RIGHT)	B-5	WF-1	MAIN C.B.A. (F)
37	LCD OPEN	R2044 (UPPER)	B-5	WF-1	MAIN C.B.A. (F)
38	ADM15	RL3021	C-6	WF-218	MAIN C.B.A. (C)
39	VSS	———	—	—	
40	VCCB2	———	—	—	
41	ADM 14	———	—	—	
42	ADM 13	———	—	—	
43	ADM 12	———	—	—	
44	ADM 11	———	—	—	
45	ADM 10	———	—	—	
46	ADM 9	———	—	—	
47	ADM 8	———	—	—	
48	VSS	———	—	—	
49	ADM 7	———	—	—	
50	ADM 6	———	—	—	
51	ADM 5	———	—	—	
52	ADM 4	———	—	—	
53	ADM 3	———	—	—	
54	ADM 2	———	—	—	
55	ADM 1	———	—	—	
56	ADM 0	———	—	—	
57	BR H	RL2003	B-6	WF-1	MAIN C.B.A. (F)
58	VCCB2	———	—	—	
59	DG IN	RL2002	B-5	WF-1	MAIN C.B.A. (F)
60	VSS	———	—	—	

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
61	AS	RL3022	D-6	WF-1	MAIN C.B.A. (C)
62	XRE	RL3024	D-6	WF-1	MAIN C.B.A. (C)
63	XWEH	RL3023	C-6	WF-1	MAIN C.B.A. (C)
64	XWEL	RL3025	C-6	WF-1	MAIN C.B.A. (C)
65	FVCC	———	—	—	
66	VCCP1	———	—	—	
67	CNA (PLANET)	RL3218	B-8		MAIN C.B.A. (F)
68	PWO (PLANET)	RL3217	B-8	WF-1	MAIN C.B.A. (F)
69	XL RST	RL3215	A-8	WF-1	MAIN C.B.A. (F)
70	XP RST	RL3216	B-8	WF-1	MAIN C.B.A. (F)
71	LCD ON H	Q611-B	D-2	WF-1	MAIN C.B.A. (F)
72	CCD ON H	CL1005	A-7	WF-1	MAIN C.B.A. (C)
73	VTR TEST L	R2025 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
74	DOOR OPEN	R2055 (LEFT)	B-5	WF-1	MAIN C.B.A. (F)
75	TORQU LIMIT	R2212 (LOWER)	E-5	WF-1	MAIN C.B.A. (C)
76	SYNC DET	R2066 (UPPER)	B-6	WF-5	MAIN C.B.A. (F)
77	A MUTE H	IC3002-19	E-4	WF-1	MAIN C.B.A. (C)
78	HP MUTE H	IC3002-20	E-4	WF-1	MAIN C.B.A. (C)
79	DET TIME	IC3002-3	E-4	WF-156	MAIN C.B.A. (C)
80	C EXMOD1	R2016 (LEFT)	B-6	WF-1	MAIN C.B.A. (F)
81	EX PAUSE	R2016 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
82	T REEL	IC2006-1	C-5	WF-158	MAIN C.B.A. (F)
83	S REEL	IC2006-7	C-5	WF-157	MAIN C.B.A. (F)
84	VSS	———	—	—	
85	SBA CS	IC3004-26	B-4	WF-1	MAIN C.B.A. (C)
86	HID	R3217 (RIGHT)	E-7	WF-1	MAIN C.B.A. (C)
87	FRP	CL3001	B-6	WF-96	MAIN C.B.A. (C)
88	AFRP	———	—	—	
89	S PLUG L	R2069 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
90	PLUG IN L	R2088 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
91	FLASH OP	———	—	—	
92	SPA	———	—	—	
93	VCCP1	———	—	—	
94	REMOCON	R2030 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
95	SSP (TSA)	CL2001	A-7	WF-1	MAIN C.B.A. (F)
96	CAP FG	CL2201	D-6	WF-98	MAIN C.B.A. (C)
97	CYL FG	CL2205	E-6	WF-99	MAIN C.B.A. (C)
98	DSC BUSY	R2015 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
99	A RB	———	—	—	
100	SUB REC	R2020 (LEFT)	B-2	WF-131	MAIN C.B.A. (C)
101	EXT MIC	R2057 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
102	NC	———	—	—	
103	NC	———	—	—	
104	VSS	———	—	—	
105	VCC	———	—	—	
106	XRST	IC3004-28	B-4	WF-1	MAIN C.B.A. (C)
107	NC	———	—	—	
108	V1V2	———	—	—	
109	NC	———	—	—	
110	DV INT	———	—	—	
111	BEND	———	—	—	
112	SBA CLK	IC3004-27	B-4	WF-1	MAIN C.B.A. (C)
113	VCCP1	———	—	—	
114	SBA DTI	IC3004-24	B-4	WF-1	MAIN C.B.A. (C)
115	SBA DTO	IC3004-25	B-4	WF-1	MAIN C.B.A. (C)
116	SIF SCK	———	—	—	
117	SIF DTI	R2003 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
118	SIF DTO	R2003 (LEFT)	B-6	WF-1	MAIN C.B.A. (F)
119	A ON H	IC3002-18	B-7	WF-1	MAIN C.B.A. (F)
120	V ON H	IC3002-44	B-7	WF-1	MAIN C.B.A. (F)

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC2001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	HP ON H	IC3002-17	B-7	WF-1	MAIN C.B.A. (C)
122	SIF CS	———	—	—	
123	VSS	———	—	—	
124	TRDATA7	———	—	—	
125	TRDATA6	———	—	—	
126	TRDATA5	———	—	—	
127	TRDATA4	———	—	—	
128	TRDATA3	———	—	—	
129	TRDATA2	———	—	—	
130	VCCJ	———	—	—	
131	VSS	———	—	—	
132	TRDATA1	———	—	—	
133	TRDATA0	———	—	—	
134	TRSYNC	———	—	—	
135	EVENTO	———	—	—	
136	FVCC	———	—	—	
137	EVENT1	RL2014	B-7	WF-1	MAIN C.B.A. (F)
138	TDO	R2026 (UPPER)	F-7	WF-1	MAIN C.B.A. (F)
139	TDI	R2072 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
140	TMS	R2075 (UPPER)	B-6	WF-1	MAIN C.B.A. (F)
141	TCK	R2078 (UPPER)	B-6	WF-1	MAIN C.B.A. (F)
142	VCCJ	———	—	—	
143	TRCLK	R2164 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
144	VSS	———	—	—	
145	TRST	R2063 (LOWER)	B-6	WF-1	MAIN C.B.A. (F)
146	DBI	R2089 (RIGHT)	B-7	WF-131	MAIN C.B.A. (F)
147	CARD DET	R2009 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
148	FP	R2090 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
149	VCC PO	———	—	—	
150	MODE	R2194 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
151	BMODE	R2091 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
152	VSS	———	—	—	
153	RESET	R2093 (UPPER)	B-6	WF-1	MAIN C.B.A. (F)
154	DSCVCC	———	—	—	
155	XIN	R2058 (UPPER)	A-5	WF-41	MAIN C.B.A. (F)
156	DSCVSS	———	—	—	
157	XOUT	R2032 (LOWER)	C-7	WF-41	MAIN C.B.A. (F)
158	PLL VCC	———	—	—	
159	PLL CAP	C2022 (LEFT)	B-7	WF-1	MAIN C.B.A. (F)
160	PLL VSS	———	—	—	
161	TXD	CL2004	B-7	WF-1	MAIN C.B.A. (F)
162	RXD	CL2006	A-7	WF-1	MAIN C.B.A. (F)
163	FREERUN	———	—	—	
164	P ON H	CL2009	B-4	WF-1	MAIN C.B.A. (F)
165	SBA CS	———	—	—	
166	EVF CS	IC601-8	E-1	WF-1	MAIN C.B.A. (F)
167	EE CS	CL2010	D-6	WF-160	MAIN C.B.A. (F)
168	DSC WAKEUP	QR3402-B	D-5	WF-1	MAIN C.B.A. (F)
169	VSS	———	—	—	
170	VCC P0	———	—	—	
171	NC	———	—	—	
172	BL BRIGHT H	CL931	E-4	WF-1	MONITOR C.B.A.
173	LCD BL CNT	QR602-2	D-3	WF-1	MAIN C.B.A. (F)
174	EVF BL CONT	RL2001	B-7	WF-1	MAIN C.B.A. (F)
175	EVF ON H	QR604-B	D-2	WF-1	MAIN C.B.A. (F)
176	DSC DTO	R3434 (RIGHT)	E-7	WF-164	MAIN C.B.A. (F)
177	DSC DTI	R2059 (LEFT)	C-7	WF-165	MAIN C.B.A. (F)
178	VSS	———	—	—	
179	DSC CLK	R3424 (LOWER)	D-4	WF-1	MAIN C.B.A. (F)
180	DSC FRP	———	—	—	
181	DAC LD	IC2009-12	D-6	WF-1	MAIN C.B.A. (F)
182	5P DTO	QR2501-1	B-2	WF-164	GYRO C.B.A. (F)
183	5P DTI	IC2503-7	B-2	WF-165	GYRO C.B.A. (F)
184	5P CLK	IC2503-3	B-2	WF-163	GYRO C.B.A. (F)
185	EE DTO	IC2009-14	D-6	WF-164	MAIN C.B.A. (F)
186	EE DTI	CL2013	D-6	WF-165	MAIN C.B.A. (F)
187	EE CLK	IC2009-13	D-6	WF-163	MAIN C.B.A. (F)
188	RTC DO	R2011 (LOWER)	C-7	WF-131	MAIN C.B.A. (F)
189	RTC DI	R2112 (UPPER)	C-7	WF-131	MAIN C.B.A. (F)
190	RTC CLK	R2113 (LEFT)	A-5	WF-131	MAIN C.B.A. (C)
191	RTC CS	IC2003-5	B-5	WF-131	MAIN C.B.A. (C)
192	CAM DO	———	—	—	
193	CAM DI	———	—	—	
194	CAM SCK	———	—	—	
195	VCC PO	———	—	—	
196	VCC	———	—	—	
197	VTR T	———	—	—	
198	MIC DO	R2126 (UPPER)	C-6	WF-1	MAIN C.B.A. (F)
199	MIC CLK	R2127 (UPPER)	C-5	WF-1	MAIN C.B.A. (F)
200	VSS	———	—	—	
201	POWER SW	R2005 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
202	EJECT SW	R2006 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
203	CR POWER	R2022 (LOWER)	C-7	WF-1	MAIN C.B.A. (F)
204	CAS DOWN	R2162 (UPPER)	C-7	WF-1	MAIN C.B.A. (F)
205	EE RST	CL2002	B-5	WF-1	MAIN C.B.A. (F)
206	RTC INT	IC2003-1	B-5	WF-1	MAIN C.B.A. (C)
207	SS DET	———	—	—	
208	INPUT SEL	IC3503-2	C-4	WF-131	MAIN C.B.A. (C)
209	CAP ERR	R2119 (UPPER)	C-6	WF-155	MAIN C.B.A. (F)
210	CYK ERR	R2118 (UPPER)	C-6	WF-95	MAIN C.B.A. (F)
211	DSC RST	QR3404-B	D-5	WF-1	MAIN C.B.A. (F)
212	CAM D3 OFF	IC202-5	E-7	WF-86	CAMERA C.B.A. (F)
213	DSC BACK	R2017 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
214	VCCPO	———	—	—	
215	OSD XIN	CL2015	C-7	WF-1	MAIN C.B.A. (F)
216	VSS	———	—	—	
217	OSD XOUT	———	—	—	
218	CG VD	CL2012	C-6	WF-131	MAIN C.B.A. (F)
219	CG HD	CL2007	C-6	WF-131	MAIN C.B.A. (F)
220	AV IN H	QR3102-B	D-3	WF-1	MAIN C.B.A. (C)
221	NC	———	—	—	
222	DSC XRST	———	—	—	
223	VCC	———	—	—	
224	CHR R	CL2022	B-5	WF-131	MAIN C.B.A. (F)
225	CHR G	CL2020	C-6	WF-131	MAIN C.B.A. (F)
226	CHR B	CL2021	C-4	WF-131	MAIN C.B.A. (C)
227	CHR BLK	CL2018	C-6	WF-131	MAIN C.B.A. (F)
228	CHR Y	CL2023	D-3	WF-1	MAIN C.B.A. (C)
229	CHR BLK1	IC3002-42	E-4	WF-1	MAIN C.B.A. (C)
230	CAM RST	R420 (LOWER)	B-3	WF-1	CAMERA C.B.A. (C)
231	CAM RTN	R377 (LOWER)	B-5	WF-1	CAMERA C.B.A. (F)
232	CAMO	———	—	—	
233	RTN FLD	———	—	—	
234	VCCPO	———	—	—	
235	VSS	———	—	—	
236	CAP RSF	R2125 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
237	XC OUT	R2124 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
238	XC IN	———	—	—	
239	VSS	———	—	—	
240	XC OUT	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC2001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
241	VC CR	——	—	—	
242	A VREF	——	—	—	
243	A VCC	——	—	—	
244	MIC AD1	——	—	—	
245	MIC AD2	R2127 (UPPER)	C-5	WF-1	MAIN C.B.A. (F)
246	MIC AD3	R2126 (UPPER)	C-6	WF-1	MAIN C.B.A. (F)
247	S PHOTO	R2178 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
248	T PHOTO	R2176 (RIGHT)	D-5	WF-1	MAIN C.B.A. (F)
249	NC	R2115 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
250	PC RST	R2116 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
251	NC	R2106 (LOWER)	C-6	WF-1	MAIN C.B.A. (F)
252	HPDET L	R2001 (RIGHT)	C-6	WF-1	MAIN C.B.A. (F)
253	V REF	IC1001-24	B-4	WF-1	MAIN C.B.A. (F)
254	V BATT	R2187 (LEFT)	C-5	WF-1	MAIN C.B.A. (F)
255	INN BATT L	CL1003	B-8	WF-1	MAIN C.B.A. (C)
256	WIDE DET	R2065 (LEFT)	C-6	WF-1	MAIN C.B.A. (F)
257	USB DET	QR2006-C	D-5	WF-1	MAIN C.B.A. (F)
258	KEY IN5	R2002 (RIGHT)	C-6	WF-1	MAIN C.B.A. (F)
259	HPDET L	IC3002-4	E-4	WF-1	MAIN C.B.A. (C)
260	AVSS	——	—	—	
261	VSS	——	—	—	

(C): COMPONENT SIDE (F): FOIL SIDE

Check Point of the IC3001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VDD 2.5V	———	——	——	
2	DRAM VSS	———	——	——	
3	INF	———	——	——	
4	DRAM VSS	———	——	——	
5	DRAM VSS	———	——	——	
6	VDD 1.5V	———	——	——	
7	VDD 1.5V	———	——	——	
8	DBP (3)	———	——	——	
9	ADM (15)	RL3021	C-6	WF-218	MAIN C.B.A. (C)
10	ADM (14)	———	——	——	
11	ADM (13)	———	——	——	
12	ADM (12)	———	——	——	
13	VSS	———	——	——	
14	VDDC	———	——	——	
15	VDD 2V	———	——	——	
16	ADM (11)	———	——	——	
17	ADM (10)	———	——	——	
18	ADM (9)	———	——	——	
19	ADM (8)	———	——	——	
20	ADM (7)	———	——	——	
21	ADM (6)	———	——	——	
22	DRAM VSS	———	——	——	
23	DRAM VSS	———	——	——	
24	VDD 1.5V	———	——	——	
25	VDD 1.5V	———	——	——	
26	ADM (5)	———	——	——	
27	ADM (4)	———	——	——	
28	ADM (3)	———	——	——	
29	ADM (2)	———	——	——	
30	ADM (1)	———	——	——	
31	ADM (0)	———	——	——	
32	VSS	———	——	——	
33	AS	RL3022	D-6	WF-1	MAIN C.B.A. (C)
34	XWEH	RL3023	C-6	WF-1	MAIN C.B.A. (C)
35	XRE	RL3024	D-6	WF-1	MAIN C.B.A. (C)
36	DRAM VSS	———	——	——	
37	DRAM VSS	———	——	——	
38	VDD 1.5V	———	——	——	
39	VDD 1.5V	———	——	——	
40	XWEL	RL3025	C-6	WF-1	MAIN C.B.A. (C)
41	PORTB	RL3034	C-6	WF-1	MAIN C.B.A. (C)
42	PORT (5)	———	——	——	
43	PORT (4)	RL3033	C-6	WF-1	MAIN C.B.A. (C)
44	PORT (3)	RL3035	C-6	WF-1	MAIN C.B.A. (C)
45	DTCLK	———	——	——	
46	PORT (2)	———	——	——	
47	DTMB	———	——	——	
48	PORT (7)	———	——	——	
49	DVM	———	——	——	
50	PORT (9)	———	——	——	
51	VDDC	———	——	——	
52	VSS	———	——	——	
53	VDD 2V	———	——	——	
54	TEST (5)	———	——	——	
55	TEST (4)	———	——	——	
56	TEST (3)	———	——	——	
57	VDD 1.5V	———	——	——	
58	VDD 1.5V	———	——	——	
59	DRAM VSS	———	——	——	
60	DRAM VSS	———	——	——	
61	TEST (2)	———	——	——	
62	TEST (1)	———	——	——	
63	TEST (0)	———	——	——	
64	PORT (8)	———	——	——	
65	PORT (6)	———	——	——	
66	DRAM VSS	———	——	——	
67	DRAM VSS	———	——	——	
68	VDD 1.5V	———	——	——	
69	VDD 1.5V	———	——	——	
70	PORT (1)	CL3031	C-6	WF-1	MAIN C.B.A. (C)
71	DRAM VSS	———	——	——	
72	VDD 2.5V	———	——	——	
73	TDO	———	——	——	
74	VDDC	———	——	——	
75	TDI	CL319	B-1	WF-1	CAMERA C.B.A. (C)
76	TCK	R3104 (LOWER)	D-6	WF-1	MAIN C.B.A. (C)
77	TMS	R3101 (LOWER)	D-6	WF-1	MAIN C.B.A. (C)
78	DRAM VSS	———	——	——	
79	VDD 2.5V	———	——	——	
80	XTRST	IC3004-28	B-4	WF-1	MAIN C.B.A. (C)
81	CLK 24	RL3004	D-6	WF-183	MAIN C.B.A. (C)
82	AFRP	———	——	——	
83	PORTC	———	——	——	
84	XRST	IC3004-28	B-4	WF-1	MAIN C.B.A. (C)
85	DIBCK	———	——	——	
86	DOBCK	IC3004-23	B-4	WF-187	MAIN C.B.A. (C)
87	FRP	CL3001	B-6	WF-147	MAIN C.B.A. (C)
88	VSS	———	——	——	
89	CLK 27A	CL3003	B-6	WF-122	MAIN C.B.A. (C)
90	VDDC	———	——	——	
91	CLK27B	RL3009	D-5	WF-122	MAIN C.B.A. (C)
92	VDD 2V	———	——	——	
93	PORTD	———	——	——	
94	LCDCLK	RL3014	D-5	WF-131	MAIN C.B.A. (C)
95	SSP	CL3002	A-7	WF-1	MAIN C.B.A. (F)
96	PORTA	IC3002-45	E-4	WF-1	MAIN C.B.A. (C)
97	DOMCK	IC3004-22	B-4	WF-186	MAIN C.B.A. (C)
98	CLK135	CL3108	D-5	WF-178	MAIN C.B.A. (C)
99	DODAT	CL3004-20	B-4	WF-184	MAIN C.B.A. (C)
100	AIDAT1	IC3004-18	B-4	WF-1	MAIN C.B.A. (C)
101	AIDAT2	IC3004-19	B-4	WF-1	MAIN C.B.A. (C)
102	DIDAT	———	——	——	
103	DILRCK	———	——	——	
104	DIMCK	———	——	——	
105	VSS	———	——	——	
106	CCDCLK1	R3030 (LEFT)	D-6	WF-1	MAIN C.B.A. (C)
107	CCDCLK0	———	——	——	
108	VDDC	———	——	——	
109	FSCLKIN	R3031 (RIGHT)	D-5	WF-1	MAIN C.B.A. (C)
110	VSS	———	——	——	
111	INH2	CL3010	C-5	WF-136	MAIN C.B.A. (C)
112	V1V2	———	——	——	
113	BEND	———	——	——	
114	DOLRCK	IC3004-21	B-4	WF-185	MAIN C.B.A. (C)
115	INV2	CL3011	D-5	WF-135	MAIN C.B.A. (F)
116	VDD2V	———	——	——	
117	VSS	———	——	——	
118	MCLK240	R3032 (LOWER)	C-5	WF-132	MAIN C.B.A. (C)
119	MCLK241	R3033 (LOWER)	C-5	WF-132	MAIN C.B.A. (C)
120	VDDC	———	——	——	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	CDATA2 (0)	———	—	—	
122	CDATA2 (1)	———	—	—	
123	CDATA2 (2)	———	—	—	
124	CDATA2 (3)	———	—	—	
125	CDATA2 (4)	———	—	—	
126	CDATA2 (5)	———	—	—	
127	CDATA2 (6)	———	—	—	
128	CDATA2 (7)	———	—	—	
129	YDATA2 (0)	———	—	—	
130	YDATA2 (1)	———	—	—	
131	YDATA2 (2)	———	—	—	
132	YDATA2 (3)	———	—	—	
133	YDATA2 (4)	———	—	—	
134	YDATA2 (5)	———	—	—	
135	YDATA2 (6)	———	—	—	
136	YDATA2 (7)	———	—	—	
137	CLKSEL (2)	———	—	—	
138	CLKSEL (1)	———	—	—	
139	CLKSEL (0)	———	—	—	
140	AVDD	———	—	—	
141	COUT	IC3002-31	E-4	WF-1	MAIN C.B.A. (C)
142	CVRS	C3035 (LEFT)	D-5	WF-1	MAIN C.B.A. (C)
143	CREF	R3024 (UPPER)	D-4	WF-1	MAIN C.B.A. (C)
144	AVSS	———	—	—	
145	DVDD	———	—	—	
146	DVSS	———	—	—	
147	AVDD	———	—	—	
148	VOUT	IC3002-35	E-4	WF-171	MAIN C.B.A. (C)
149	VVBS	C3031 (UPPER)	C-5	WF-1	MAIN C.B.A. (C)
150	VREF	R3022 (UPPER)	D-4	WF-1	MAIN C.B.A. (C)
151	AVSS	———	—	—	
152	AVDD	———	—	—	
153	EVFROUT	IC601-44	E-2	WF-171	MAIN C.B.A. (F)
154	EVFRVBS	C3029 (RIGHT)	C-4	WF-1	MAIN C.B.A. (C)
155	AVSS	———	—	—	
156	AVDD	———	—	—	
157	EVFGOUT	IC601-43	E-2	WF-172	MAIN C.B.A. (F)
158	EVFGVBS	C3027 (LEFT)	C-4	WF-1	MAIN C.B.A. (C)
159	EVFREF	R3017 (LEFT)	C-4	WF-1	MAIN C.B.A. (C)
160	AVSS	———	—	—	
161	AVDD	———	—	—	
162	EVFBOUT	IC601-42	E-2	WF-173	MAIN C.B.A. (F)
163	EVFBVBS	C3025 (UPPER)	C-5	WF-1	MAIN C.B.A. (C)
164	AVSS	———	—	—	
165	DVDD	———	—	—	
166	DVSS	———	—	—	
167	AVDD	———	—	—	
168	LCDROUT	R650 (RIGHT)	D-4	WF-171	MAIN C.B.A. (F)
169	LCDRVBS	C3021 (RIGHT)	C-4	WF-1	MAIN C.B.A. (C)
170	AVSS	———	—	—	
171	AVDD	———	—	—	
172	LCDGOUT	R649 (RIGHT)	D-4	WF-172	MAIN C.B.A. (F)
173	LCDGVBS	C3020 (LEFT)	C-4	WF-1	MAIN C.B.A. (C)
174	LCDREF	R3007 (LEFT)	D-4	WF-1	MAIN C.B.A. (C)
175	AVSS	———	—	—	
176	AVDD	———	—	—	
177	LCDBOUT	R648	D-4	WF-173	MAIN C.B.A. (F)
178	LCDBVBS	C3018 (RIGHT)	C-4	WF-1	MAIN C.B.A. (C)
179	AVSS	———	—	—	
180	ADIN (0)	———	—	—	
181	ADIN (1)	———	—	—	
182	ADIN (2)	———	—	—	
183	ADIN (3)	———	—	—	
184	FCK45	CL3003	B-6	WF-131	MAIN C.B.A. (F)
185	ADIN (5)	———	—	—	
186	ADIN (6)	———	—	—	
187	VSS	———	—	—	
188	FCK2135	———	—	—	
189	VDOC	———	—	—	
190	ADIN (7)	———	—	—	
191	ADIN (8)	———	—	—	
192	ADIN (9)	———	—	—	
193	VSS	———	—	—	
194	ADIN (4)	———	—	—	
195	VDOC	———	—	—	
196	VDD32	———	—	—	
197	CAMVD	———	—	—	
198	CAMHD	———	—	—	
199	PLLDVDD	———	—	—	
200	PLLAVDD	———	—	—	
201	PLLAVSS	———	—	—	
202	PLLDVSS	———	—	—	
203	IVCOAVD	———	—	—	
204	FSLPFI	R3041 (LOWER)	B-5	WF-1	MAIN C.B.A. (C)
205	IVCOAVSS	———	—	—	
206	LCDPOL	R3009 (UPPER)	B-5	WF-1	MAIN C.B.A. (C)
207	EVFPOL	R3034 (UPPER)	B-5	WF-1	MAIN C.B.A. (C)
208	ZPWMOUT1	———	—	—	
209	ZPWMOUT2	———	—	—	
210	PWMOUT1	———	—	—	
211	OSDVR	CL2022	B-5	WF-171	MAIN C.B.A. (F)
212	OSDVG	CL2020	C-6	WF-172	MAIN C.B.A. (F)
213	OSDVB	CL2021	C-4	WF-173	MAIN C.B.A. (C)
214	OSDBLKA	CL2018	C-6	WF-1	MAIN C.B.A. (F)
215	ODSBLKB	R3011 (UPPER)	B-5	WF-1	MAIN C.B.A. (C)
216	VSS	———	—	—	
217	VDDC	———	—	—	
218	VDDS	———	—	—	
219	VBLK	IC601-46	E-2	WF-129	MAIN C.B.A. (F)
220	LCDHD	IC601-47	E-2	WF-126	MAIN C.B.A. (F)
221	CAM AFDR DTO	———	—	—	
222	CAM AFDR CLK	———	—	—	
223	AFDR CS INT	———	—	—	
224	CAM CG DTO	———	—	—	
225	CAM CG CLK	———	—	—	
226	CAM CG CS	———	—	—	
227	OSDHD	CL2007	C-6	WF-131	MAIN C.B.A. (F)
228	OSDVD	CL2012	C-6	WF-131	MAIN C.B.A. (F)
229	FSLPFD	R3041 (UPPER)	B-5	WF-1	MAIN C.B.A. (C)
230	STILL	———	—	—	
231	ALCPWM	———	—	—	
232	VSS	———	—	—	
233	VDDC	———	—	—	
234	SIG	———	—	—	
235	ZDCOMP	———	—	—	
236	ZCCOMP	———	—	—	
237	ZBCOMP	———	—	—	
238	ZACOMP	———	—	—	
239	F2C	———	—	—	
240	FCB	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3001

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
241	FCA	———	——	——	
242	OSDCLK	CL2015	C-7	WF1	MAIN C.B.A. (F)
243	VDDC	———	——	——	
244	CDATAI (0)	———	——	——	
245	CDATAI (1)	———	——	——	
246	CDATAI (2)	———	——	——	
247	CDATAI (3)	———	——	——	
248	CDATAI (4)	———	——	——	
249	CDATAI (5)	———	——	——	
250	CDATAI (6)	———	——	——	
251	CDATAI (7)	———	——	——	
252	YDATAI (0)	———	——	——	
253	YDATAI (1)	———	——	——	
254	YDATAI (2)	———	——	——	
255	YDATAI (3)	———	——	——	
256	YDATAI (4)	———	——	——	
257	YDATAI (5)	———	——	——	
258	YDATAI (6)	———	——	——	
259	YDATAI (7)	———	——	——	
260	VDD 2V	———	——	——	
261	VDDC	———	——	——	
262	VSS	———	——	——	
263	DBR	———	——	——	
264	INV1	CL3013	B-5	WF-135	MAIN C.B.A. (C)
265	REQR	RL3206	C-6	WF-1	MAIN C.B.A. (C)
266	DBR (2)	———	——	——	
267	DBR (3)	———	——	——	
268	INH1	CL3012	B-5	WF-136	MAIN C.B.A. (C)
269	ACKR	RL3205	D-6	WF-1	MAIN C.B.A. (C)
270	ACKP	———	——	——	
271	REQP	———	——	——	
272	VDD2.5V	———	——	——	
273	DRM VSS	———	——	——	
274	DBR (1)	———	——	——	
275	DBP (0)	———	——	——	
276	DBP (1)	———	——	——	
277	DBP (2)	———	——	——	
278	VSS	———	——	——	
279	NC	———	——	——	
280	NC	———	——	——	
281	NC	———	——	——	
282	NC	———	——	——	
283	NC	———	——	——	
284	NC	———	——	——	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3201

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	DVDD	———	—	—	
2	DVDD	———	—	—	
3	DVSS	———	—	—	
4	XRST	R3201 (LOWER)	E-7	WF-1	MAIN C.B.A. (C)
5	ATFIN	C3205 (LOWER)	D-7	WF-176	MAIN C.B.A. (C)
6	CS	———	—	—	
7	AVDD (ADC)	———	—	—	
8	PBIN	CL3203	E-7	WF-142	MAIN C.B.A. (C)
9	PBX	C3207 (UPPER)	D-7	WF-1	MAIN C.B.A. (C)
10	AVSS (ADC)	———	—	—	
11	VCOREF	RL3202	D-7	WF-1	MAIN C.B.A. (C)
12	VCORP	R3205 (UPPER)	D-7	WF-2	MAIN C.B.A. (C)
13	AVDD (VCO)	———	—	—	
14	AVSS (VCO)	———	—	—	
15	VCOIN	R3209 (LOWER)	E-7	WF-1	MAIN C.B.A. (C)
16	AVDD (SDAC)	———	—	—	
17	AVSS (SDAC)	———	—	—	
18	AVDD (TDAC)	———	—	—	
19	OSO	R3209 (UPPER)	E-7	WF-1	MAIN C.B.A. (C)
20	ATFO	———	—	—	
21	AVSS (TFDAC)	———	—	—	
22	FPO	R3211 (UPPER)	E-7	WF-1	MAIN C.B.A. (C)
23	FPO B	R3212 (LEFT)	E-7	WF-1	MAIN C.B.A. (C)
24	IREF	R3213 (LEFT)	E-7	WF-1	MAIN C.B.A. (C)
25	IBIAS	C3218 (LOWER)	B-8	WF-1	MAIN C.B.A. (F)
26	AVDD (FDA/PWM)	———	—	—	
27	AGCCTL	R3215 (LOWER)	E-7	WF-1	MAIN C.B.A. (C)
28	AVSS (PWM)	———	—	—	
29	REC CUR	RL3201	E-7	WF-1	MAIN C.B.A. (C)
30	TRST	R3201 (UPPER)	E-7	WF-1	MAIN C.B.A. (C)
31	TMS	R3202 (UPPER)	D-6	WF-131	MAIN C.B.A. (C)
32	TCK	R3204 (UPPER)	D-6	WF-1	MAIN C.B.A. (C)
33	TDO	———	—	—	
34	TDI	RL3214	A-7	WF-1	MAIN C.B.A. (F)
35	SPA	———	—	—	
36	HID1	R3217 (LEFT)	E-7	WF-140	MAIN C.B.A. (C)
37	DVDD	———	—	—	
38	HID2	IC5001-16	E-8	WF-1	MAIN C.B.A. (C)
39	RECI	IC5001-19	E-8	WF-1	MAIN C.B.A. (C)
40	DVSS	———	—	—	
41	HSE	CL3208	E-7	WF-1	MAIN C.B.A. (C)
42	PBH	CL5001	E-9	WF-1	MAIN C.B.A. (C)
43	EQHLD	IC5001-11	E-8	WF-1	MAIN C.B.A. (C)
44	RECCTL	IC5001-15	E-8	WF-1	MAIN C.B.A. (C)
45	RECCLK	CL3213	E-7	WF-190	MAIN C.B.A. (C)
46	DVDD	———	—	—	
47	DRIVECLK	IC2201-19	D-5	WF-178	MAIN C.B.A. (C)
48	CYLFG	CL2205	E-6	WF-180	MAIN C.B.A. (C)
49	CYLPG	CL2204	E-6	WF-179	MAIN C.B.A. (C)
50	DVSS	———	—	—	
51	DVDD	———	—	—	
52	ADM (0)	———	—	—	
53	DVSS	———	—	—	
54	ADM (2)	———	—	—	
55	ADM (1)	———	—	—	
56	NC	———	—	—	
57	ADM (4)	———	—	—	
58	ADM (3)	———	—	—	
59	DVDD	———	—	—	
60	DVSS	———	—	—	
61	ADM (5)	———	—	—	
62	ADM (6)	———	—	—	
63	ADM (7)	———	—	—	
64	ADM (8)	———	—	—	
65	DVDD	———	—	—	
66	ADM (9)	———	—	—	
67	ADM (10)	———	—	—	
68	ADM (11)	———	—	—	
69	DVSS	———	—	—	
70	ADM (12)	———	—	—	
71	ADM (15)	RL3021	C-6	WF-131	MAIN C.B.A. (C)
72	ADM (13)	———	—	—	
73	ADM (14)	———	—	—	
74	XRE	RL3024	D-6	WF-1	MAIN C.B.A. (C)
75	AS	RL3022	D-6	WF-1	MAIN C.B.A. (C)
76	DVDD	———	—	—	
77	XWEL	RL3025	C-6	WF-1	MAIN C.B.A. (C)
78	XWEH	CL3023	C-6	WF-1	MAIN C.B.A. (C)
79	DVSS	———	—	—	
80	DBR (0)	———	—	—	
81	DBR (1)	———	—	—	
82	DBR (2)	———	—	—	
83	DBR (3)	———	—	—	
84	NC	———	—	—	
85	ACKR	RL3205	D-6	WF-1	MAIN C.B.A. (C)
86	REQR	RL3206	C-6	WF-1	MAIN C.B.A. (C)
87	DVDD	———	—	—	
88	CLK27A	RL3003	D-6	WF-122	MAIN C.B.A. (C)
89	DVSS	———	—	—	
90	TSTDT (0)	RL3221	D-6	WF-131	MAIN C.B.A. (C)
91	TSTDT (2)	RL3222	D-6	WF-131	MAIN C.B.A. (C)
92	TSTDT (1)	RL3223	D-6	WF-131	MAIN C.B.A. (C)
93	TSTDT (3)	RL3224	D-6	WF-131	MAIN C.B.A. (C)
94	TSTDT (5)	RL3225	D-7	WF-131	MAIN C.B.A. (C)
95	TSTDT (4)	RL3226	D-6	WF-131	MAIN C.B.A. (C)
96	TSTDT (6)	RL3227	D-6	WF-131	MAIN C.B.A. (C)
97	TSTDT (7)	RL3228	D-7	WF-131	MAIN C.B.A. (C)
98	TSTCKO	———	—	—	
99	DVDD	———	—	—	
100	DVSS	———	—	—	
101	TSTCKI	———	—	—	
102	TSTDT (8)	———	—	—	
103	TSTDT (14)	———	—	—	
104	TSTDT (11)	———	—	—	
105	TSTDT (9)	———	—	—	
106	TSTDT (10)	———	—	—	
107	TSTDT (13)	———	—	—	
108	TSTDT (12)	———	—	—	
109	TSTMD	———	—	—	
110	TSTDT (15)	———	—	—	
111	SCANEI	RL3204	D-7	WF-131	MAIN C.B.A. (C)
112	NC	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3202

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VSS	———	—	—	
2	MON7	———	—	—	
3	MON6	———	—	—	
4	MON5	———	—	—	
5	MON4	———	—	—	
6	VCC	———	—	—	
7	MON3	———	—	—	
8	MON2	———	—	—	
9	MON1	———	—	—	
10	MON0	———	—	—	
11	VSS	———	—	—	
12	VCCA	———	—	—	
13	GNDA	———	—	—	
14	TPBN	CL3212	B-8	WF-1	MAIN C.B.A. (F)
15	TPBP	CL3211	B-8	WF-1	MAIN C.B.A. (F)
16	VCCA	———	—	—	
17	TPAN	CL3210	B-8	WF-1	MAIN C.B.A. (F)
18	TPAP	CL3209	B-8	WF-1	MAIN C.B.A. (F)
19	TPBIAS	C3254 (UPPER)	B-8	WF-1	MAIN C.B.A. (F)
20	GNDA	———	—	—	
21	R0	R3257 (LOWER)	B-8	WF-1	MAIN C.B.A. (F)
22	R1	R3258 (UPPER)	B-8	WF-1	MAIN C.B.A. (F)
23	VCCA	———	—	—	
24	PLLFLT0	C3255 (RIGHT)	B-8	WF-1	MAIN C.B.A. (F)
25	PLLFLT1	C3255 (LEFT)	B-8	WF-1	MAIN C.B.A. (F)
26	VDDPLL	———	—	—	
27	VSSPLL	———	—	—	
28	XI	———	—	—	
29	PWRDN	RL3217	B-8	WF-1	MAIN C.B.A. (F)
30	XPRST	RL3216	B-8	WF-1	MAIN C.B.A. (F)
31	CNA	RL3218	B-8	WF-1	MAIN C.B.A. (F)
32	VCC	———	—	—	
33	XINTP	———	—	—	
34	XLRST	RL3215	A-8	WF-1	MAIN C.B.A. (F)
35	LREQ	———	—	—	
36	SYSCLK	———	—	—	
37	VSS	———	—	—	
38	CTL1	———	—	—	
39	CTL0	———	—	—	
40	D7	———	—	—	
41	D6	———	—	—	
42	VCC	———	—	—	
43	D5	———	—	—	
44	D4	———	—	—	
45	D3	———	—	—	
46	D2	———	—	—	
47	VSS	———	—	—	
48	D1	———	—	—	
49	D0	———	—	—	
50	ADM15	RL3021	C-6	WF-131	MAIN C.B.A. (C)
51	ADM14	———	—	—	
52	VCC	———	—	—	
53	ADM13	———	—	—	
54	ADM12D	———	—	—	
55	ADM11	———	—	—	
56	ADM10	———	—	—	
57	VSS	———	—	—	
58	ADM9	———	—	—	
59	ADM8	———	—	—	
60	ADM7.	———	—	—	
61	ADM6	———	—	—	
62	VCC	———	—	—	
63	ADM5	———	—	—	
64	ADM4	———	—	—	
65	ADM3	———	—	—	
66	ADM2	———	—	—	
67	VSS	———	—	—	
68	ADM1	———	—	—	
69	ADM0	———	—	—	
70	F SCLK	———	—	—	
71	XRE	RL3024	D-6	WF-1	MAIN C.B.A. (C)
72	VCC	———	—	—	
73	XWEL	RL3025	C-6	WF-1	MAIN C.B.A. (C)
74	AS	RL3022	D-6	WF-1	MAIN C.B.A. (C)
75	DBP3	———	—	—	
76	DBP2	———	—	—	
77	ACKP	———	—	—	
78	VSS	———	—	—	
79	DBP1	———	—	—	
80	REQP	———	—	—	
81	DBP0	———	—	—	
82	INF	———	—	—	
83	VCC	———	—	—	
84	SSP	CL3002	A-7	WF-1	MAIN C.B.A. (F)
85	ENSUS	———	—	—	
86	XTRST	RL3215	A-8	WF-1	MAIN C.B.A. (F)
87	VSS	———	—	—	
88	TDO	RL3214	A-7	WF-30	MAIN C.B.A. (F)
89	FRP	CL3001	B-6	WF-1	MAIN C.B.A. (C)
90	TMS	R3102 (UPPER)	D-6	WF-1	MAIN C.B.A. (C)
91	TCK	R3104 (UPPER)	D-6	WF-1	MAIN C.B.A. (C)
92	VCC	———	—	—	
93	TDI	———	—	—	
94	CLK27A	RL3003	D-6	WF-122	MAIN C.B.A. (C)
95	VSS	———	—	—	
96	TEST3	CL3221	A-8	WF-1	MAIN C.B.A. (F)
97	TEST2	CL3221	A-8	WF-1	MAIN C.B.A. (F)
98	TEST1	CL3221	A-8	WF-1	MAIN C.B.A. (F)
99	TEST0	CL3221	A-8	WF-1	MAIN C.B.A. (F)
100	VCC	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3451

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VSS	———	—	—	
2	FRPX2	———	—	—	
3	TEST2 (NC)	———	—	—	
4	TCK	R3104 (LOWER)	D-6	WF-1	MAIN C.B.A. (C)
5	TXD	R3435 (LOWER)	D-7	WF-1	MAIN C.B.A. (F)
6	VCC3	———	—	—	
7	DRAMTE (NC)	———	—	—	
8	DSC CLK	R3424 (UPPER)	D-4	WF-1	MAIN C.B.A. (F)
9	VCC3	———	—	—	
10	CKIO	R3439 (RIGHT)	D-4	WF-68	MAIN C.B.A. (F)
11	XCPURST	R3428 (RIGHT)	D-5	WF-1	MAIN C.B.A. (F)
12	VSS	———	—	—	
13	XRESET	———	—	—	
14	XDAIT I	———	—	—	
15	VSS	———	—	—	
16	XDAIT O	———	—	—	
17	VCC3	———	—	—	
18	XWE3	R3494 (LOWER)	E-6	WF-1	MAIN C.B.A. (F)
19	KEY2	R3495 (LEFT)	E-7	WF-1	MAIN C.B.A. (F)
20	XWE1	R3496 (UPPER)	E-4	WF-1	MAIN C.B.A. (F)
21	TD1	R3423 (RIGHT)	F-7	WF-1	MAIN C.B.A. (F)
22	XWE0	———	—	—	
23	XCS2	R3401 (LEFT)	E-7	WF-44	MAIN C.B.A. (F)
24	XCS5	R3452 (LEFT)	C-8	WF-44	MAIN C.B.A. (F)
25	TRST	———	—	—	
26	XRD	R3436 (LOWER)	F-3	WF-131	MAIN C.B.A. (F)
27	RDWR	———	—	—	
28	KBS	———	—	—	
29	VCC3	———	—	—	
30	RXD	R3434 (LEFT)	E-7	WF-1	MAIN C.B.A. (F)
31	VCC3	———	—	—	
32	XIRL2	———	—	—	
33	XIRL1	———	—	—	
34	XIRL0	———	—	—	
35	XMCOR 29	———	—	—	
36	EXTAL	———	—	—	
37	VSS	———	—	—	
38	PORT3	CL3406	E-6	WF-1	MAIN C.B.A. (F)
39	MMC LED	QR3401-B	D-5	WF-1	MAIN C.B.A. (F)
40	VSS	———	—	—	
41	DSC BUSY	R3441 (UPPER)	D-7	WF-136	MAIN C.B.A. (F)
42	NC	R3406 (LOWER)	F-6	WF-131	MAIN C.B.A. (F)
43	MD1	R3415 (LOWER)	E-7	WF-1	MAIN C.B.A. (F)
44	MD2	———	—	—	
45	MD4	———	—	—	
46	A25	R3437 (LEFT)	F-4	WF-1	MAIN C.B.A. (F)
47	A19	———	—	—	
48	A18	———	—	—	
49	A17	———	—	—	
50	A16	———	—	—	
51	A15	———	—	—	
52	A14	———	—	—	
53	VCC3	———	—	—	
54	A13	———	—	—	
55	A12	———	—	—	
56	A11	———	—	—	
57	A10	———	—	—	
58	A9	———	—	—	
59	VSS	———	—	—	
60	A8	———	—	—	
61	A7	———	—	—	
62	A6	———	—	—	
63	A5	———	—	—	
64	A4	———	—	—	
65	A3	———	—	—	
66	A2	———	—	—	
67	TMS	R3102 (LOWER)	D-6	WF-131	MAIN C.B.A. (C)
68	TDO	R3497 (RIGHT)	E-7	WF-131	MAIN C.B.A. (F)
69	VCC3	———	—	—	
70	VSS	———	—	—	
71	VSS	———	—	—	
72	D0	———	—	—	
73	D1	———	—	—	
74	D2	———	—	—	
75	VCC3	———	—	—	
76	D3	———	—	—	
77	D4	———	—	—	
78	D5	———	—	—	
79	D6	———	—	—	
80	D7	———	—	—	
81	VSS	———	—	—	
82	D8	———	—	—	
83	D9	———	—	—	
84	D10	———	—	—	
85	VCC3	———	—	—	
86	D11	———	—	—	
87	D12	———	—	—	
88	D13	———	—	—	
89	VSS	———	—	—	
90	D14	———	—	—	
91	D15	———	—	—	
92	D16	———	—	—	
93	D17	———	—	—	
94	VSS	———	—	—	
95	D18	———	—	—	
96	D19	———	—	—	
97	VCC3	———	—	—	
98	D20	———	—	—	
99	D21	———	—	—	
100	D22	———	—	—	
101	VCC3	———	—	—	
102	D23	———	—	—	
103	VSS	———	—	—	
104	D24	———	—	—	
105	D25	———	—	—	
106	VCC3	———	—	—	
107	D26	———	—	—	
108	D27	———	—	—	
109	VSS	———	—	—	
110	D28	———	—	—	
111	D29	———	—	—	
112	D30	———	—	—	
113	VCC3	———	—	—	
114	D31	———	—	—	
115	CARD DATI	———	—	—	
116	CARD DATO	R3408 (RIGHT)	E-5	WF-1	MAIN C.B.A. (F)
117	VSS	———	—	—	
118	CARDCMDI	———	—	—	
119	VCC3	———	—	—	
120	CARDCMD0	R3405 (RIGHT)	E-5	WF-1	MAIN C.B.A. (F)

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3451

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	CARD CLK	R3413 (RIGHT)	E-5	WF-1	MAIN C.B.A. (F)
122	VSS	—	—	—	
123	TEST1	—	—	—	
124	TEST0	—	—	—	
125	VSS	—	—	—	
126	H O	CL3010	C-5	WF-213	MAIN C.B.A. (C)
127	V O	CL3011	D-5	WF-161	MAIN C.B.A. (C)
128	VD D15	—	—	—	
129	VCC3	—	—	—	
130	VSS	—	—	—	
131	VCC2	—	—	—	
132	VD D14	—	—	—	
133	VD D13	—	—	—	
134	VD D12	—	—	—	
135	VD D11	—	—	—	
136	VD D10	—	—	—	
137	VSS	—	—	—	
138	VD D9	—	—	—	
139	VD D8	—	—	—	
140	VD D7	—	—	—	
141	VCC3	—	—	—	
142	VD D6	—	—	—	
143	VD D5	—	—	—	
144	VCC2	—	—	—	
145	VD D4	—	—	—	
146	VD D3	—	—	—	
147	VSS	—	—	—	
148	VD D2	—	—	—	
149	VD D1	—	—	—	
150	VD D0	—	—	—	
151	VSS	—	—	—	
152	VCC2	—	—	—	
153	VD I15	—	—	—	
154	VD I14	—	—	—	
155	VD I13	—	—	—	
156	VD I12	—	—	—	
157	VD I11	—	—	—	
158	VD I10	—	—	—	
159	VD I9	—	—	—	
160	VD I8	—	—	—	
161	VD I7	CL3422	D-6	WF-161	MAIN C.B.A. (F)
162	VSS	—	—	—	
163	VCC3	—	—	—	
164	VD I6	—	—	—	
165	VD I5	—	—	—	
166	VD I4	—	—	—	
167	VD I3	—	—	—	
168	VD I2	—	—	—	
169	VSS	—	—	—	
170	VD I1	—	—	—	
171	VD I0	—	—	—	
172	VCC2	—	—	—	
173	H I	—	—	—	
174	V I	CL3423	E-5	WF-1	MAIN C.B.A. (F)
175	F13P5CK2	R3402 (RIGHT)	D-7	WF-131	MAIN C.B.A. (F)
176	VSS	—	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3452

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	A15	———	—	—	
2	A14	———	—	—	
3	A13	———	—	—	
4	A12	———	—	—	
5	A11	———	—	—	
6	A10	———	—	—	
7	A9	———	—	—	
8	A8	———	—	—	
9	NC	———	—	—	
10	NC	———	—	—	
11	WEB	R3403 (RIGHT)	E-4	WF-1	MAIN C.B.A. (F)
12	RSTB	R3428 (RIGHT)	D-5	WF-1	MAIN C.B.A. (F)
13	NC	———	—	—	
14	A18	———	—	—	
15	RY/BYB	R3406 (LOWER)	F-6	WF-1	MAIN C.B.A. (F)
16	NC	———	—	—	
17	A17	———	—	—	
18	A7	———	—	—	
19	A6	———	—	—	
20	A5	———	—	—	
21	A4	———	—	—	
22	A3	———	—	—	
23	A2	———	—	—	
24	A1	———	—	—	
25	A0	———	—	—	
26	CEB	IC3403-4	D-4	WF-1	MAIN C.B.A. (F)
27	VSS	———	—	—	
28	OEB	R3436 (LOWER)	F-3	WF-1	MAIN C.B.A. (F)
29	DQ0	———	—	—	
30	DQ8	———	—	—	
31	DQ1	———	—	—	
32	DQ9	———	—	—	
33	DQ2	———	—	—	
34	DQ10	———	—	—	
35	DQ3	———	—	—	
36	DQ11	———	—	—	
37	VCC	———	—	—	
38	DQ4	———	—	—	
39	DQ12	———	—	—	
40	DQ5	———	—	—	
41	DQ13	———	—	—	
42	DQ6	———	—	—	
43	DQ14	———	—	—	
44	DQ7	———	—	—	
45	DQ15/A-1	———	—	—	
46	VSS	———	—	—	
47	BYTEB	———	—	—	
48	A16	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3453

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	MD1	———	—	—	
2	MD2	———	—	—	
3	VCC	———	—	—	
4	NC	———	—	—	
5	VCC	———	—	—	
6	VSS	———	—	—	
7	NMI	QR3402-C	D-5	WF-1	MAIN C.B.A. (F)
8	IRQ0/PTH0	———	—	—	
9	IRQ1/PTH1	———	—	—	
10	IRQ2/PTH2	———	—	—	
11	IRQ3/PTH3	IC3407-4	D-4	WF-131	MAIN C.B.A. (F)
12	IRQ4/PTH4	R3448 (RIGHT)	D-5	WF-131	MAIN C.B.A. (F)
13	D31/PTB7	———	—	—	
14	D30/PTB6	———	—	—	
15	D29/PTB5	———	—	—	
16	D28/PTB4	———	—	—	
17	D27/PTB3	———	—	—	
18	D26/PTB2	———	—	—	
19	VSSQ	———	—	—	
20	D25/PTB1	———	—	—	
21	VCCQ	———	—	—	
22	D24/PTB0	———	—	—	
23	D23/PTA7	———	—	—	
24	D22/PTA6	———	—	—	
25	D21/PTA5	———	—	—	
26	D20/PTA4	———	—	—	
27	VSS	———	—	—	
28	D19/PTA3	———	—	—	
29	VCC	———	—	—	
30	D18/PTA2	———	—	—	
31	D17/PTA1	———	—	—	
32	D16/PTA0	———	—	—	
33	VSSQ	———	—	—	
34	D15	———	—	—	
35	VCCQ	———	—	—	
36	D14	———	—	—	
37	D13	———	—	—	
38	D12	———	—	—	
39	D11	———	—	—	
40	D10	———	—	—	
41	D9	———	—	—	
42	D8	———	—	—	
43	D7	———	—	—	
44	D6	———	—	—	
45	VSSQ	———	—	—	
46	D5	———	—	—	
47	VCCQ	———	—	—	
48	D4	———	—	—	
49	D3	———	—	—	
50	D2	———	—	—	
51	D1	———	—	—	
52	D0	———	—	—	
53	A0	———	—	—	
54	A1	———	—	—	
55	A2	———	—	—	
56	A3	———	—	—	
57	VSSQ	———	—	—	
58	A4	———	—	—	
59	VCCQ	———	—	—	
60	A5	———	—	—	
61	A6	———	—	—	
62	A7	———	—	—	
63	A8	———	—	—	
64	A9	———	—	—	
65	A10	———	—	—	
66	A11	———	—	—	
67	A12	———	—	—	
68	A13	———	—	—	
69	VSSQ	———	—	—	
70	A14	———	—	—	
71	VCCQ	———	—	—	
72	A15	———	—	—	
73	A16	———	—	—	
74	A17	———	—	—	
75	A18	———	—	—	
76	A19	———	—	—	
77	A20	———	—	—	
78	A21	———	—	—	
79	VSS	———	—	—	
80	A22	———	—	—	
81	VCC	———	—	—	
82	A23	———	—	—	
83	VSSQ	———	—	—	
84	A24	———	—	—	
85	VCCQ	———	—	—	
86	A25	R3437 (LEFT)	F-4	WF-1	MAIN C.B.A. (F)
87	BS/PTK4	———	—	—	
88	RD	R3436 (LOWER)	F-3	WF-131	MAIN C.B.A. (F)
89	WE0/DQMLL	———	—	—	
90	WE1/DQMLU	R3496 (UPPER)	E-4	WF-1	MAIN C.B.A. (F)
91	WE2/DQRLL/PTK6	R3495 (LEFT)	E-7	WF-1	MAIN C.B.A. (F)
92	WE3/DQRLU/PTK7	R3494 (LOWER)	E-6	WF-1	MAIN C.B.A. (F)
93	RD/WR	———	—	—	
94	AUDSYNC/PTE7	———	—	—	
95	VSSQ	———	—	—	
96	CS0	IC3403-1	D-4	WF-68	MAIN C.B.A. (F)
97	VCCQ	———	—	—	
98	CS2/PTK0	R3401 (LEFT)	E-7	WF-131	MAIN C.B.A. (F)
99	CS3/PTK1	———	—	—	
100	CS4/PTK2	———	—	—	
101	CS5/PTK3	R3452 (LEFT)	C-8	WF-131	MAIN C.B.A. (F)
102	CS6	———	—	—	
103	PTE4	IC3407-1	D-4	WF-1	MAIN C.B.A. (F)
104	PTE5	R3433 (RIGHT)	E-7	WF-1	MAIN C.B.A. (F)
105	CKE/PTK5	———	—	—	
106	BAS3L/PTJ0	———	—	—	
107	NF/PTJ1	C3429 (LOWER)	E-7	WF-131	MAIN C.B.A. (F)
108	CAST/PTJ2	———	—	—	
109	VSSQ	———	—	—	
110	CASU/PTJ3	———	—	—	
111	VCCQ	———	—	—	
112	NF/PTJ4	———	—	—	
113	NF/PTJ5	———	—	—	
114	DACK0/PRD5	QR3403-B	D-4	WF-1	MAIN C.B.A. (F)
115	DACK1/PRD7	R3449 (UPPER)	E-3	WF-1	MAIN C.B.A. (F)
116	PTE6	IC3405-4	D-8	WF-1	MAIN C.B.A. (F)
117	PTE3	IC3402-6	D-3	WF-1	MAIN C.B.A. (F)
118	RAS3U/PTE2	R3462 (LEFT)	F-4	WF-1	MAIN C.B.A. (F)
119	PTE1	IC3401-1	D-5	WF-1	MAIN C.B.A. (F)
120	TDO/PTE0	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3453

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	BACK	R3426 (RIGHT)	F-4	WF-1	MAIN C.B.A. (F)
122	BREQ	IC3401-4	D-5	WF-1	MAIN C.B.A. (F)
123	WAIT	———	—	—	
124	RESETW	———	—	—	
125	ADTRG/PTH5	———	—	—	
126	PTG7	———	—	—	
127	ASEMD0/PTG6	———	—	—	
128	ASEBRKAK/PTG5	———	—	—	
129	UCLK/PTG4	R3450 (RIGHT)	E-4	WF-1	MAIN C.B.A. (F)
130	AUDATA3/PTG3	———	—	—	
131	AUDATA3/PTG2	———	—	—	
132	VSS	———	—	—	
133	AUDATA1/PTG1	———	—	—	
134	VCC	———	—	—	
135	AUDATA0/PTG0	———	—	—	
136	TRST/PTF7	———	—	—	
137	TMS/PTF6	———	—	—	
138	TDI/PTF5	———	—	—	
139	TCK/PTF4	R3440 (RIGHT)	D-4	WF-1	MAIN C.B.A. (F)
140	DMMS/PTF3	IC3455-5	D-4	WF-1	MAIN C.B.A. (F)
141	DPLS/PTF2	IC3455-4	D-4	WF-1	MAIN C.B.A. (F)
142	TXDPLS/PTF1	IC3455-12	D-4	WF-1	MAIN C.B.A. (F)
143	TXDMMS/PTF0	IC3455-13	D-4	WF-1	MAIN C.B.A. (F)
144	MD0	———	—	—	
145	VCC	———	—	—	
146	CAP1	C3402 (RIGHT)	D-4	WF-1	MAIN C.B.A. (F)
147	VSS	———	—	—	
148	VSS	———	—	—	
149	CAP2	C3404 (RIGHT)	D-4	WF-1	MAIN C.B.A. (F)
150	VCC	———	—	—	
151	AUDCK/PTH6	———	—	—	
152	VSS	———	—	—	
153	VSS	———	—	—	
154	VCC	———	—	—	
155	XTAL	———	—	—	
156	EXTAL	———	—	—	
157	STATUS0/PTJ6	CL3401	D-4	WF-131	MAIN C.B.A. (F)
158	STATUS1/PTJ7	CL3403	D-4	WF-131	MAIN C.B.A. (F)
159	TCLK/PTH7	———	—	—	
160	IRQOUT	———	—	—	
161	VSSQ	———	—	—	
162	CKIO	R3439 (LEFT)	D-4	WF-68	MAIN C.B.A. (F)
163	VCCQ	———	—	—	
164	TXD0/SCPT0	R3415 (LOWER)	E-7	WF-1	MAIN C.B.A. (F)
165	SCK0/SCPT1	———	—	—	
166	TXD1/SCPT2	R3420 (UPPER)	D-7	WF-1	MAIN C.B.A. (F)
167	SCK1/SCPT3	———	—	—	
168	TXD2/SCPT4	———	—	—	
169	SCK2/SCPT5	———	—	—	
170	SCPT6	———	—	—	
171	RXD0/SCPT0	———	—	—	
172	RXD1/SCPT2	———	—	—	
173	VSS	———	—	—	
174	RXD2/SCPT4	———	—	—	
175	VCC	———	—	—	
176	IRQ5/SCPT7	———	—	—	
177	IRQ6/PTC7	———	—	—	
178	IRQ7/PTC6	———	—	—	
179	XVDATA/PTC5 1/10	IC3455-3	D-4	WF-131	MAIN C.B.A. (F)
180	TXENL/PTC4	IC3455-2	D-4	WF-131	MAIN C.B.A. (F)
181	VSSQ	———	—	—	
182	VBUS/PTD3	IC3407-4	D-4	WF-1	MAIN C.B.A. (F)
183	VCCQ	———	—	—	
184	SUSPND/PTD2	IC3455-6	D-4	WF-1	MAIN C.B.A. (F)
185	NFX6/PTC3	———	—	—	
186	NFX6/PTC2	———	—	—	
187	NFX6/PTC1	———	—	—	
188	PTC0	R3440 (LEFT)	D-4	WF-1	MAIN C.B.A. (F)
189	DRAK0/PTD1	———	—	—	
190	DRAK1/PTD0	———	—	—	
191	DREQ0/PTD4	———	—	—	
192	DREQ1/PTD6	———	—	—	
193	RESETP	R3428 (RIGHT)	D-4	WF-1	MAIN C.B.A. (F)
194	VCCQ	———	—	—	
195	MD3	———	—	—	
196	MD4	———	—	—	
197	VSS	———	—	—	
198	AVSS	———	—	—	
199	AM0/PTL0	———	—	—	
200	AM1/PTL1	———	—	—	
201	AM2/PTL2	———	—	—	
202	AM2/PTL3	———	—	—	
203	PTL4	———	—	—	
204	PTL5	———	—	—	
205	AVCC	———	—	—	
206	PTL6	———	—	—	
207	PTL7	———	—	—	
208	AVSS	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3456

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	ARM D14	———	—	—	
2	ARM D13	———	—	—	
3	ARM D12	———	—	—	
4	ARM D11	———	—	—	
5	CVD D1	C3427 (UPPER)	E-7	WF-1	MAIN C.B.A. (F)
6	ARM D10	———	—	—	
7	ARM D9	———	—	—	
8	DVD D1	———	—	—	
9	ARM D8	———	—	—	
10	ARM D7	———	—	—	
11	ARM D6	———	—	—	
12	ARM D5	———	—	—	
13	ARM D4	———	—	—	
14	ARM D3	———	—	—	
15	ARM D2	———	—	—	
16	ARM D1	———	—	—	
17	ARM D0	———	—	—	
18	CGND1	———	—	—	
19	DSP CLKS	IC3405-1	D-8	WF-1	MAIN C.B.A. (F)
20	DSP BOR	IC4501-11	C-7	WF-131	MAIN C.B.A. (F)
21	CVDD2	———	—	—	
22	DSP BCLKX	IC4501-10	C-7	WF-131	MAIN C.B.A. (F)
23	DSP RF SX	IC4501-9	C-7	WF-131	MAIN C.B.A. (F)
24	DSP BCLKR	IC4501-10	C-7	WF-131	MAIN C.B.A. (F)
25	DSP BF SB	IC4501-9	C-7	WF-131	MAIN C.B.A. (F)
26	DGND1	———	—	—	
27	DSP BOX	IC4501-12	C-7	WF-1	MAIN C.B.A. (F)
28	GIO 20	———	—	—	
29	DVD D2	———	—	—	
30	GIO 19	———	—	—	
31	GIO 18	IC3401-2	D-5	WF-1	MAIN C.B.A. (F)
32	GIO 17	R3454 (UPPER)	E-7	WF-1	MAIN C.B.A. (F)
33	GIO 16	IC4501-15	C-7	WF-1	MAIN C.B.A. (F)
34	GIO 15	IC3454-2	F-4	WF-1	MAIN C.B.A. (F)
35	GIO 14	R3460 (RIGHT)	D-7	WF-1	MAIN C.B.A. (F)
36	GIO 13	———	—	—	
37	GIO 12	———	—	—	
38	GIO 11	———	—	—	
39	GIO 10	———	—	—	
40	GIO 9	R3448 (RIGHT)	D-5	WF-1	MAIN C.B.A. (F)
41	GIO 8	———	—	—	
42	CVDD 3	———	—	—	
43	GIO 7	R3460 (RIGHT)	D-7	WF-1	MAIN C.B.A. (F)
44	GIO 6	———	—	—	
45	GIO 5	IC4501-7	C-7	WF-1	MAIN C.B.A. (F)
46	DVDD3	———	—	—	
47	GIO 4	———	—	—	
48	GIO 3	———	—	—	
49	GIO 2	———	—	—	
50	GIO 1	———	—	—	
51	GIO 0	———	—	—	
52	EMJ 0	———	—	—	
53	EMJ 1	———	—	—	
54	CGND 2	———	—	—	
55	RESET	IC3402-5	D-5	WF-1	MAIN C.B.A. (F)
56	PWDN	———	—	—	
57	TEST 0	———	—	—	
58	TEST 1	———	—	—	
59	TEST 2	C3429 (LOWER)	E-7	WF-1	MAIN C.B.A. (F)
60	TEST 3	R3430	D-7	WF-1	MAIN C.B.A. (F)
61	TEST 4	R3462 (LEFT)	F-4	WF-1	MAIN C.B.A. (F)
62	SCAN	———	—	—	
63	USB DP	———	—	—	
64	USB DM	———	—	—	
65	USB VDD	———	—	—	
66	DGND 2	———	—	—	
67	SDI 1	———	—	—	
68	SDI 2	R3420 (UPPER)	D-7	WF-1	MAIN C.B.A. (F)
69	RXD 2	———	—	—	
70	RXD 1	———	—	—	
71	DVDD4	———	—	—	
72	SCLK 1	IC4501-16	C-7	WF-1	MAIN C.B.A. (F)
73	SDQ1	IC4501-18	C-7	WF-1	MAIN C.B.A. (F)
74	SCLK 2	———	—	—	
75	SDQ2	———	—	—	
76	TXD1	———	—	—	
77	TXD2	———	—	—	
78	CVD D4	———	—	—	
79	CGND3	———	—	—	
80	YOUT7	———	—	—	
81	YOUT6	———	—	—	
82	YOUT5	———	—	—	
83	YOUT4	———	—	—	
84	YOUT3	———	—	—	
85	DVDDML1	———	—	—	
86	YOUT2	———	—	—	
87	YOUT1	———	—	—	
88	YOUT0	———	—	—	
89	COUT7	CL3422	D-6	WF-53	MAIN C.B.A. (F)
90	COUT6	———	—	—	
91	COUT5	———	—	—	
92	DGND 3	———	—	—	
93	COUT4	———	—	—	
94	COUT3	———	—	—	
95	COUT2	———	—	—	
96	COUT1	———	—	—	
97	COUT0	———	—	—	
98	MDIN	CL3012	B-5	WF-1	MAIN C.B.A. (C)
99	VDIN	CL3013	B-5	WF-1	MAIN C.B.A. (C)
100	DVDDML2	———	—	—	
101	MEGA PIX	———	—	—	
102	MDOUT	———	—	—	
103	VCOUT	CL3423	E-5	WF-1	MAIN C.B.A. (F)
104	BUSY	———	—	—	
105	CGMD4	———	—	—	
106	BLK END	———	—	—	
107	DSTRB	———	—	—	
108	YIN 7	———	—	—	
109	YIN 6	———	—	—	
110	YIN 5	———	—	—	
111	YIN 4	———	—	—	
112	YIN 3	———	—	—	
113	YIN 2	———	—	—	
114	YIN 1	———	—	—	
115	YIN 0	———	—	—	
116	CVD D5	———	—	—	
117	CGND5	———	—	—	
118	CLK135	R3402 (RIGHT)	D-7	WF-1	MAIN C.B.A. (F)
119	CIN 7	———	—	—	
120	CIN 6	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3456

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	CIN 5	———	—	—	
122	CIN 4	———	—	—	
123	CIN 3	———	—	—	
124	CIN 2	———	—	—	
125	CIN 1	———	—	—	
126	CIN 0	———	—	—	
127	PLLGND 2	———	—	—	
128	PLLLYDD 2	———	—	—	
129	CYDD6	———	—	—	
130	MXO	———	—	—	
131	MXI	———	—	—	
132	CLK 27	R3439 (LEFT)	D-4	WF-68	MAIN C.B.A. (F)
133	DGND4	———	—	—	
134	SDR RAS	———	—	—	
135	SDR CAS	———	—	—	
136	SDR WE	———	—	—	
137	SDR CS	———	—	—	
138	SDR CKE	———	—	—	
139	DVDD5	———	—	—	
140	SDR DQHH	———	—	—	
141	SDR DQMHL	———	—	—	
142	CGND6	———	—	—	
143	SDR DQMLH	———	—	—	
144	SDR DQMLL	———	—	—	
145	SDR A14	———	—	—	
146	SDR A13	———	—	—	
147	SDR A12	———	—	—	
148	CVDD7	———	—	—	
149	SDR A11	———	—	—	
150	SDR A10	———	—	—	
151	DGND5	———	—	—	
152	SDR A9	———	—	—	
153	SDR A8	———	—	—	
154	SDR A7	———	—	—	
155	SDR A6	———	—	—	
156	SDR A5	———	—	—	
157	SDR A4	———	—	—	
158	SDR A3	———	—	—	
159	SDR A2	———	—	—	
160	DVDD6	———	—	—	
161	SDR A1	———	—	—	
162	SDR A0	———	—	—	
163	CGND7	———	—	—	
164	ARM D31	———	—	—	
165	ARM D30	———	—	—	
166	ARM D29	———	—	—	
167	ARM D28	———	—	—	
168	ARM D27	———	—	—	
169	ARM D26	———	—	—	
170	ARM D25	———	—	—	
171	ARM 24	———	—	—	
172	CVDD8	———	—	—	
173	ARM D23	———	—	—	
174	ARM D22	———	—	—	
175	ARM D21	———	—	—	
176	ARM D20	———	—	—	
177	ARM D19	———	—	—	
178	DVDD7	———	—	—	
179	ARM D18	———	—	—	
180	ARM D17	———	—	—	

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
181	ARM D16	———	—	—	
182	DGND6	———	—	—	
183	SDR DQ15	———	—	—	
184	SDR DQ14	———	—	—	
185	SDR DQ13	———	—	—	
186	SDR DQ12	———	—	—	
187	SDR DQ11	———	—	—	
188	SDR DQ10	———	—	—	
189	SDR DQ9	———	—	—	
190	SDR DQ8	———	—	—	
191	SDR DQ7	———	—	—	
192	SDR DQ6	———	—	—	
193	SDR DQ5	———	—	—	
194	SDR DQ4	———	—	—	
195	DVDD6	———	—	—	
196	SDR DQ3	———	—	—	
197	SDR DQ2	———	—	—	
198	SDR DQ1	———	—	—	
199	SDR DQ0	———	—	—	
200	SDR CLK	———	—	—	
201	TDO	R3423 (LEFT)	F-7	WF-1	MAIN C.B.A. (F)
202	DNGD7	———	—	—	
203	TDI	R2026 (LOWER)	E-7	WF-1	MAIN C.B.A. (F)
204	TCK	R3104 (LOWER)	D-6	WF-131	MAIN C.B.A. (C)
205	TMS	R3102 (LOWER)	D-6	WF-131	MAIN C.B.A. (C)
206	TRST	R3433 (RIGHT)	E-7	WF-1	MAIN C.B.A. (F)
207	PLLGND	———	—	—	
208	PLLVDD	———	—	—	
209	CVDD9	———	—	—	
210	M48XI	———	—	—	
211	M48XO	———	—	—	
212	EM WAIT	———	—	—	
213	EM WIDTH	———	—	—	
214	CVDD18	———	—	—	
215	CGND8	———	—	—	
216	EM CS0	R3401 (LEFT)	E-7	WF-131	MAIN C.B.A. (F)
217	EM CS1	———	—	—	
218	EM CS2	———	—	—	
219	EM CS3	———	—	—	
220	EM CS4	———	—	—	
221	DVDD9	———	—	—	
222	EM WE	———	—	—	
223	M RXO	———	—	—	
224	EM BEL	———	—	—	
225	EM BEH	———	—	—	
226	EM OE	R3436 (LOWER)	F-3	WF-131	MAIN C.B.A. (F)
227	EM BS	———	—	—	
228	CGND9	———	—	—	
229	ARM A22	———	—	—	
230	ARM A21	———	—	—	
231	ARM A20	———	—	—	
232	ARM A19	———	—	—	
233	ARM A18	———	—	—	
234	ARM A17	———	—	—	
235	ARM A16	———	—	—	
236	CVDD11	———	—	—	
237	DGND8	———	—	—	
238	ARM A15	———	—	—	
239	ARM A14	———	—	—	
240	ARM A13	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3456

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
241	ARM A12	—	—	—	
242	ARM A11	—	—	—	
243	ARM A10	—	—	—	
244	ARM A9	—	—	—	
245	ARM A8	—	—	—	
246	DVDD10	—	—	—	
247	ARM A7	—	—	—	
248	ARM A6	—	—	—	
249	ARM A5	—	—	—	
250	ARM A4	—	—	—	
251	ARM A3	—	—	—	
252	ARM A2	—	—	—	
253	ARM A1	—	—	—	
254	ARM A0	—	—	—	
255	DGND9	—	—	—	
256	ARM D15	—	—	—	

(C): COMPONENT SIDE (F): FOIL SIDE

Check Point of the IC3457

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VCC	———	—	—	
2	DQ0	———	—	—	
3	DQ1	———	—	—	
4	VCC	———	—	—	
5	DQ2	———	—	—	
6	VSS	———	—	—	
7	DQ3	———	—	—	
8	DQ4	———	—	—	
9	VCC	———	—	—	
10	DQ5	———	—	—	
11	DQ6	———	—	—	
12	VSS	———	—	—	
13	DQ7	———	—	—	
14	NC	———	—	—	
15	NC	———	—	—	
16	VCC	———	—	—	
17	WEB	———	—	—	
18	LDQM	———	—	—	
19	CASB	———	—	—	
20	RASB	———	—	—	
21	CSB	———	—	—	
22	NC	———	—	—	
23	BA0	———	—	—	
24	BA1	———	—	—	
25	A10	———	—	—	
26	A9	———	—	—	
27	A1	———	—	—	
28	A2	———	—	—	
29	A3	———	—	—	
30	VCC	———	—	—	
31	VSS	———	—	—	
32	A4	———	—	—	
33	A5	———	—	—	
34	A6	———	—	—	
35	A7	———	—	—	
36	A8	———	—	—	
37	A9	———	—	—	
38	A11	———	—	—	
39	NC	———	—	—	
40	CKE	———	—	—	
41	CLK	———	—	—	
42	NC	———	—	—	
43	UDQM	———	—	—	
44	NC	———	—	—	
45	VSS	———	—	—	
46	NC	———	—	—	
47	NC	———	—	—	
48	DQ8	———	—	—	
49	VCC	———	—	—	
50	DQ9	———	—	—	
51	DQ10	———	—	—	
52	VSS	———	—	—	
53	DQ11	———	—	—	
54	DQ12	———	—	—	
55	VCC	———	—	—	
56	DQ13	———	—	—	
57	DQ14	———	—	—	
58	VSS	———	—	—	
59	DQ15	———	—	—	
60	VSS	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

Check Point of the IC3501

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
1	VDD	———	—	—	
2	VDD	———	—	—	
3	VDD	———	—	—	
4	MONI 0 (6)	———	—	—	
5	MONI 0 (5)	———	—	—	
6	AVDD 2.5	———	—	—	
7	AVSS	———	—	—	
8	AVBB	———	—	—	
9	Y AINC	R3580 (RIGHT)	B-2	WF-1	MAIN C.B.A. (C)
10	Y AINT	IC3504-7	C-3	WF-1	MAIN C.B.A. (C)
11	Y REFBOT	C3515 (LOWER)	C-2	WF-1	MAIN C.B.A. (C)
12	Y CML	C3509 (RIGHT)	C-2	WF-1	MAIN C.B.A. (C)
13	Y REFTOP	C3514 (LOWER)	C-2	WF-1	MAIN C.B.A. (C)
14	Y ITEST	C3510 (RIGHT)	C-2	WF-1	MAIN C.B.A. (C)
15	Y STBY	———	—	—	
16	Y SPEEDUP	———	—	—	
17	VCD2	———	—	—	
18	DVSS	———	—	—	
19	AVBB	———	—	—	
20	DVDD2.5	———	—	—	
21	Y EOC	———	—	—	
22	Y STC	———	—	—	
23	C STC	———	—	—	
24	C EOC	———	—	—	
25	DVDD2.5	———	—	—	
26	DVSS	———	—	—	
27	AVBB	———	—	—	
28	VDD2	———	—	—	
29	C SPEEDUP	———	—	—	
30	C STBY	———	—	—	
31	C ITEST	C3512 (UPPER)	B-2	WF-1	MAIN C.B.A. (C)
32	C REFTOP	C3514 (LOWER)	C-2	WF-1	MAIN C.B.A. (C)
33	C CNL	C3513 (UPPER)	B-2	WF-1	MAIN C.B.A. (C)
34	C REFBOT	C3515 (LOWER)	C-2	WF-1	MAIN C.B.A. (C)
35	C AINT	R3580 (LEFT)	B-2	WF-1	MAIN C.B.A. (C)
36	C AINC	R3580 (RIGHT)	B-2	WF-1	MAIN C.B.A. (C)
37	AVBB	———	—	—	
38	AVSS	———	—	—	
39	AVDD2.5	———	—	—	
40	MONI 0 (4)	———	—	—	
41	MONI 0 (3)	———	—	—	
42	VSS	———	—	—	
43	VSS	———	—	—	
44	VSS	———	—	—	
45	VDD	———	—	—	
46	VDD	———	—	—	
47	VDD	———	—	—	
48	MONI 0 (2)	———	—	—	
49	MONI 0 (1)	———	—	—	
50	VDD	———	—	—	
51	MONI 0 (0)	———	—	—	
52	VSS	———	—	—	
53	VDD	———	—	—	
54	FS MODE	———	—	—	
55	INF 1	———	—	—	
56	INF 0	———	—	—	
57	FS ENBL	———	—	—	
58	VDD	———	—	—	
59	CLK27N	———	—	—	
60	VDDC	RL3009	D-5	WF-1	MAIN C.B.A.(C)
61	YC STP	———	—	—	
62	VSS	———	—	—	
63	YC SDA	R2003 (RIGHT)	B-6	WF-1	MAIN C.B.A. (F)
64	VSS	———	—	—	
65	NOSYNC	R2066 (UPPER)	B-6	WF-1	MAIN C.B.A. (F)
66	YC SCK	———	—	—	
67	LSI RESET	R3501 (LEFT)	B-3	WF-1	MAIN C.B.A. (C)
68	PS	QR3502-B	B-3	WF-1	MAIN C.B.A. (C)
69	VDDC	———	—	—	
70	VBLK 0	C3517 (LEFT)	B-2	WF-73	MAIN C.B.A. (C)
71	VBLK1	———	—	—	
72	MONI SEL 1 (5)	———	—	—	
73	MONI SEL 1 (4)	———	—	—	
74	MONI SEL 1 (3)	———	—	—	
75	MONI SEL 1 (2)	———	—	—	
76	MONI SEL 1 (1)	———	—	—	
77	MONI SEL 1 (0)	———	—	—	
78	TMS	R3594 (LEFT)	B-3	WF-1	MAIN C.B.A. (C)
79	TCK	R3591 (RIGHT)	B-3	WF-1	MAIN C.B.A. (C)
80	VSS	———	—	—	
81	TRST	R3501 (RIGHT)	B-3	WF-1	MAIN C.B.A. (C)
82	TDI	R3498 (RIGHT)	E-7	WF-1	MAIN C.B.A. (C)
83	TDO	CL320	C-1	WF-1	CAMERA C.B.A. (C)
84	P N SEL	———	—	—	
85	CAM IN SEL	———	—	—	
86	VSS	———	—	—	
87	VSS	———	—	—	
88	VSS	———	—	—	
89	VDD	———	—	—	
90	VDD	———	—	—	
91	VDD	———	—	—	
92	VDD	———	—	—	
93	VIDEO S I	R3568 (UPPER)	D-4	WF-131	MAIN C.B.A. (C)
94	INH	———	—	—	
95	CPSYNC	CL3503	B-3	WF-131	MAIN C.B.A. (C)
96	COLOR FRAM	CL3504	B-3	WF-131	MAIN C.B.A. (C)
97	VSS	———	—	—	
98	VSS	———	—	—	
99	C D O (0)	———	—	—	
100	VDD	———	—	—	
101	C D O (1)	———	—	—	
102	C D O (2)	———	—	—	
103	C D O (3)	———	—	—	
104	VDD	———	—	—	
105	C D O (4)	———	—	—	
106	VSS	———	—	—	
107	C D O (5)	———	—	—	
108	C D O (6)	———	—	—	
109	C D O (7)	———	—	—	
110	VSS	———	—	—	
111	Y D O (0)	———	—	—	
112	Y D O (1)	———	—	—	
113	VDD	———	—	—	
114	INV	———	—	—	
115	Y D O (2)	———	—	—	
116	Y D O (3)	———	—	—	
117	VDD	———	—	—	
118	Y D O (4)	———	—	—	
119	Y D O (5)	———	—	—	
120	Y D O (6)	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

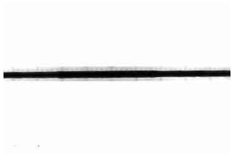
Check Point of the IC3501

CSP IC		Check Point		WF NO.	Remarks
Pin	Name				
121	Y D O (7)	———	—	—	
122	Y D O (8)	———	—	—	
123	Y D O (9)	———	—	—	
124	VSS	———	—	—	
125	CAM Y (0)	———	—	—	
126	CAM Y (1)	———	—	—	
127	CAM Y (2)	———	—	—	
128	CAM Y (3)	———	—	—	
129	VDD	———	—	—	
130	VDD	———	—	—	
131	VDD	———	—	—	
132	VSS	———	—	—	
133	VSS	———	—	—	
134	VSS	———	—	—	
135	CAM Y (4)	———	—	—	
136	VDD	———	—	—	
137	CAM Y (5)	———	—	—	
138	VDD	———	—	—	
139	CAM INH	———	—	—	
140	CAM INV	———	—	—	
141	VSS	———	—	—	
142	VDD	———	—	—	
143	CAM C (0)	———	—	—	
144	VSS	———	—	—	
145	VSS	———	—	—	
146	CLK 135M	CL3108	D-5	WF-1	MAIN C.B.A. (C)
147	VDD	———	—	—	
148	VDD	———	—	—	
149	VDD	———	—	—	
150	CAM C (1)	———	—	—	
151	CAM C (2)	———	—	—	
152	CAM C (3)	———	—	—	
153	CAM C (4)	———	—	—	
154	VSS	———	—	—	
155	CAM C (5)	———	—	—	
156	VSS	———	—	—	
157	CAM C (6)	———	—	—	
158	CAM C (7)	———	—	—	
159	VSS	———	—	—	
160	VSS	———	—	—	
161	CAM Y (6)	———	—	—	
162	CAM Y (7)	———	—	—	
163	CAM Y (8)	———	—	—	
164	CAM Y (9)	———	—	—	
165	VDD	———	—	—	
166	ALL HIZ N	———	—	—	
167	NANDTREE 1	———	—	—	
168	NANDTREE 2	———	—	—	
169	VSS	———	—	—	
170	VSS	———	—	—	
171	MONI 0 (9)	———	—	—	
172	MONI 0 (8)	———	—	—	
173	MONI 0 (7)	———	—	—	
174	VSS	———	—	—	
175	VSS	———	—	—	
176	VSS	———	—	—	

(C): COMPONENT SIDE (F):FOIL SIDE

13.2. WAVEFORM TABLE (PLAY MODE)

WF-1



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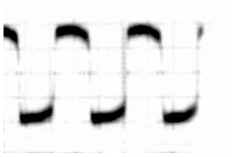

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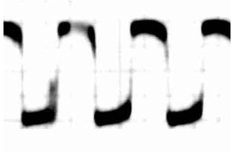

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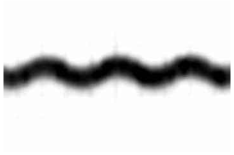

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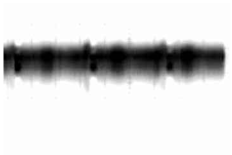

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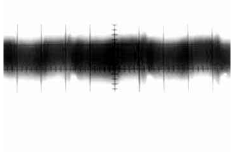

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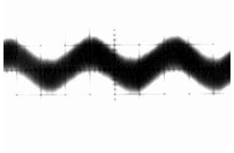

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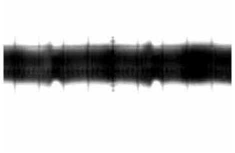

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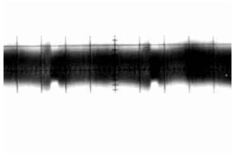

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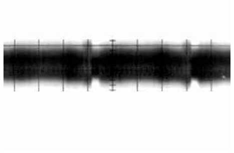

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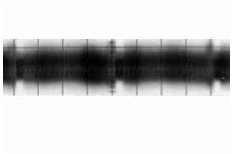

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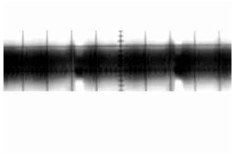

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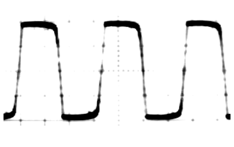

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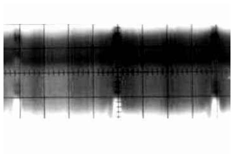

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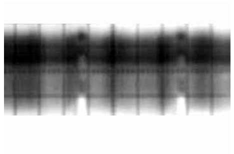

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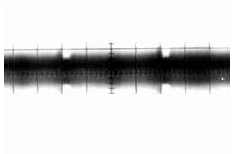

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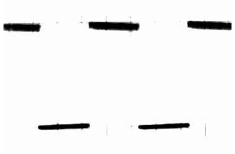

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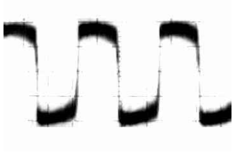

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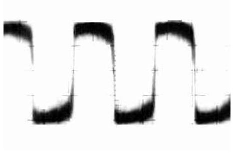

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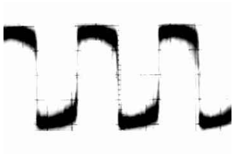

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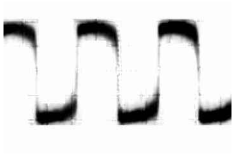

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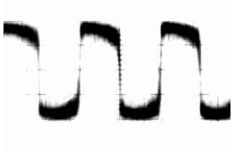

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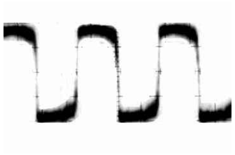

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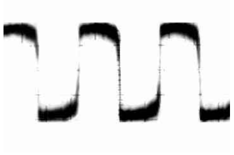

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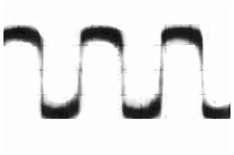

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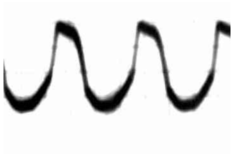

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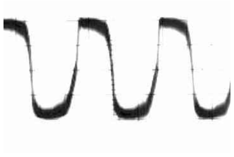

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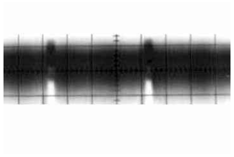

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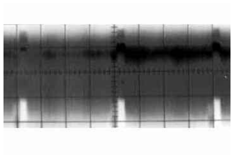

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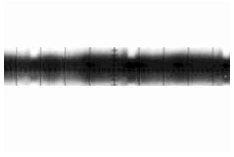

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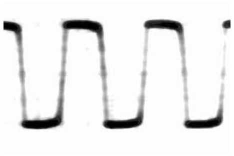

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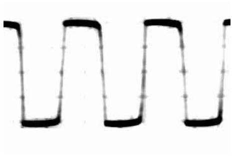

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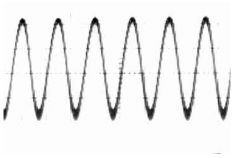

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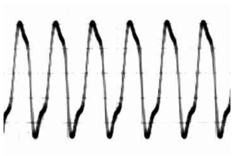

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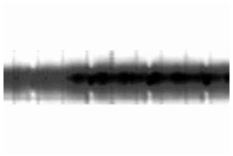

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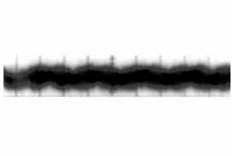

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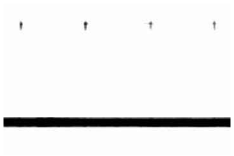

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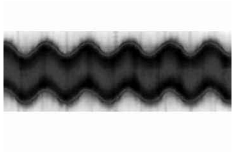

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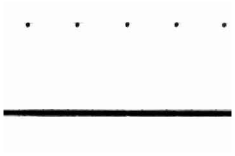

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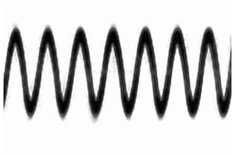

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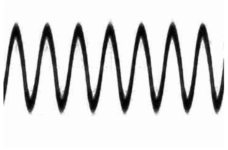

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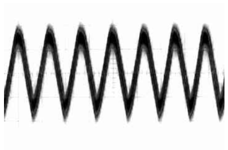

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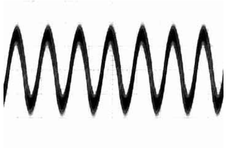

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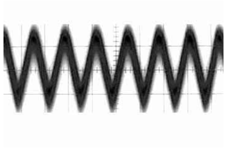

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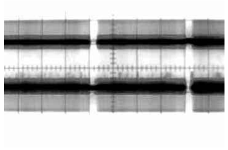

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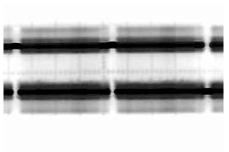

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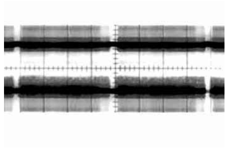

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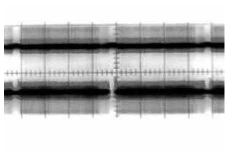

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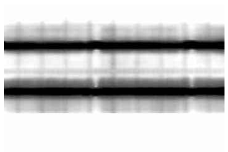

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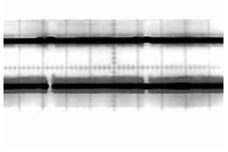

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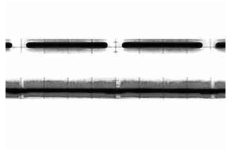

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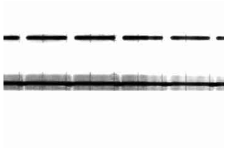

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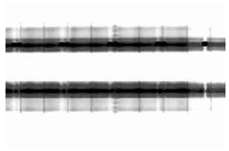

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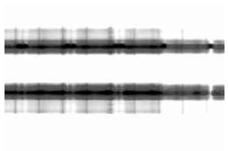

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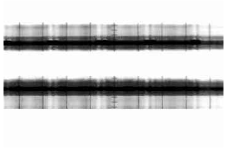

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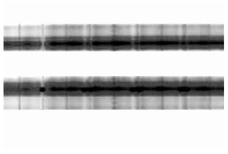

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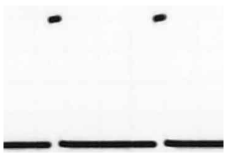

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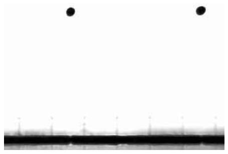

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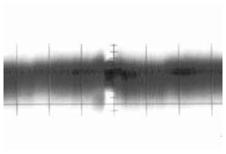

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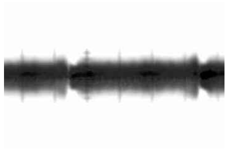

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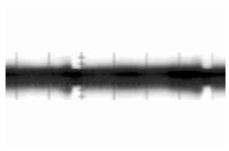

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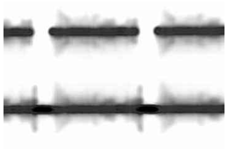

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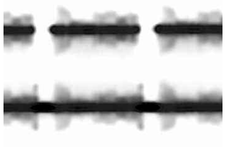

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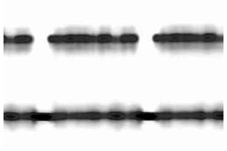

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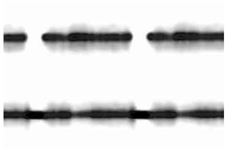

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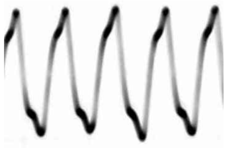

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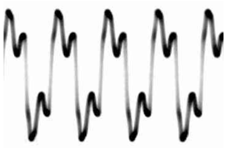

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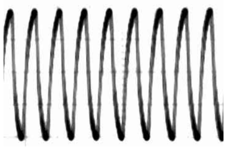

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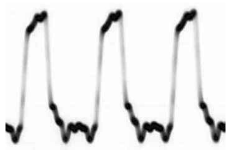

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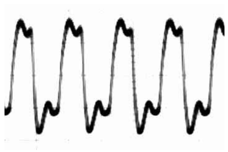

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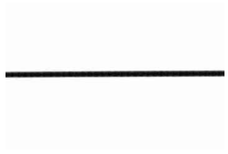

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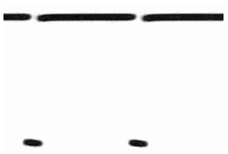

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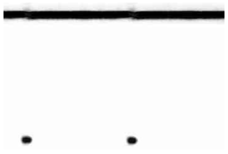

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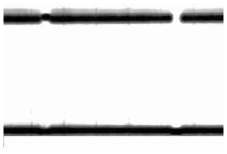

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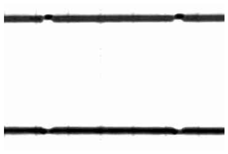

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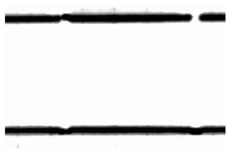

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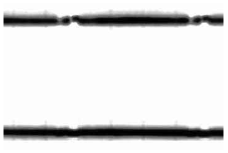

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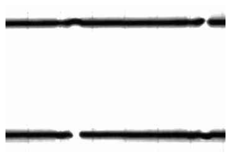

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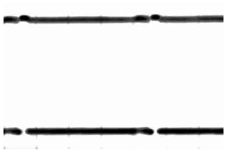

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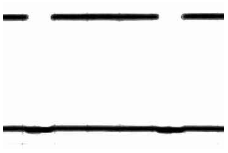

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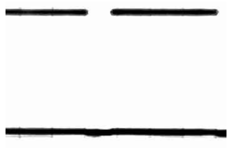

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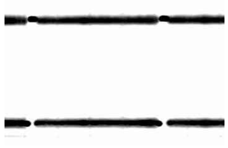

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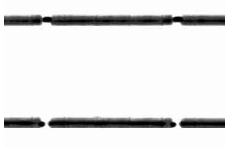

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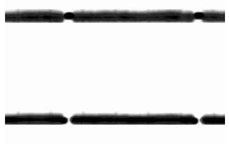

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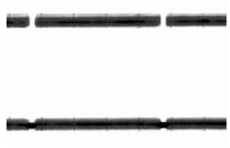

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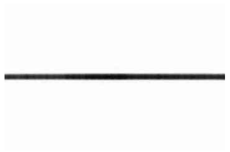

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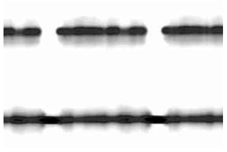

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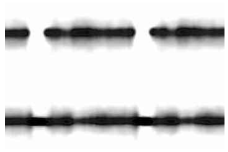

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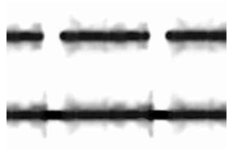

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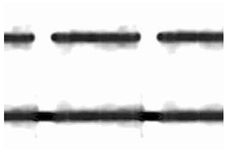

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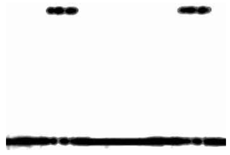

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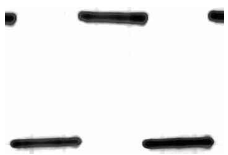

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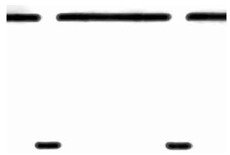

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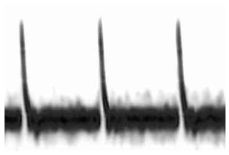

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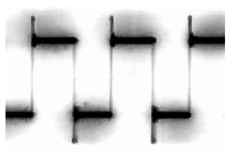

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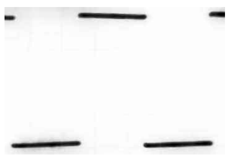

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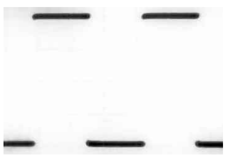

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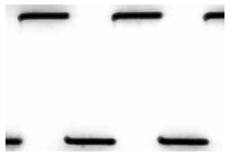

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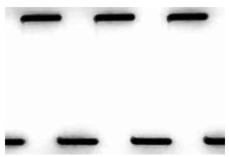

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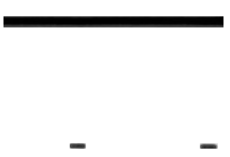

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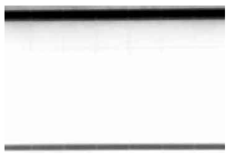

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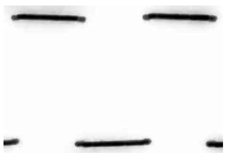

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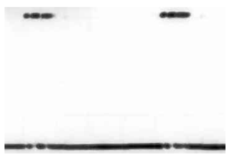

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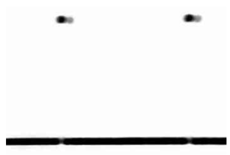

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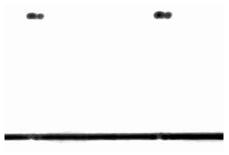

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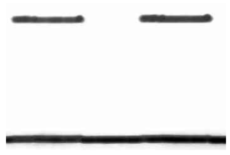

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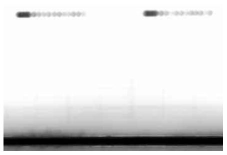

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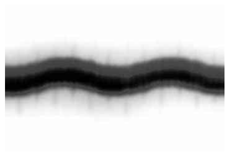

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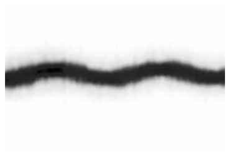

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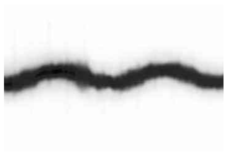

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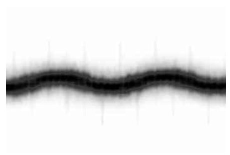

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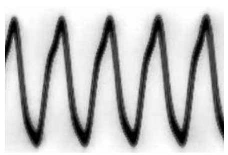

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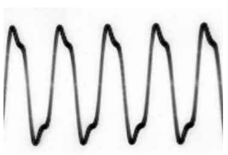

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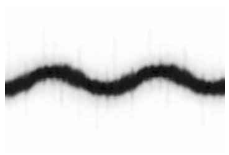

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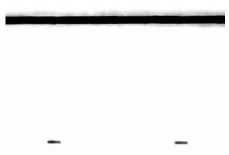

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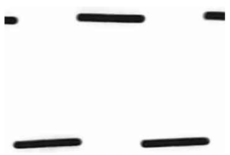

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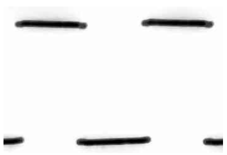

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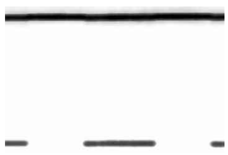

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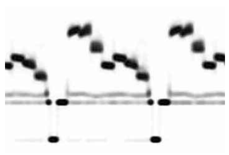

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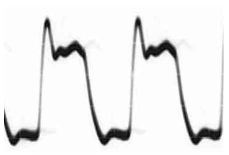

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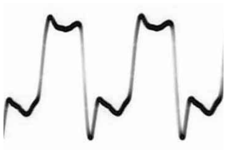

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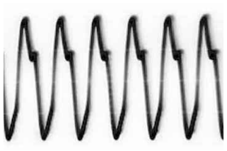

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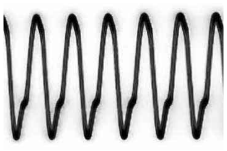

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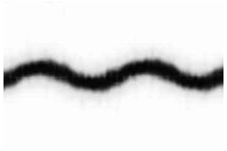

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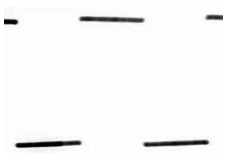
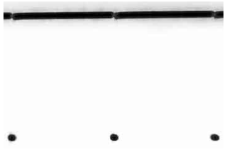
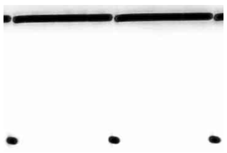


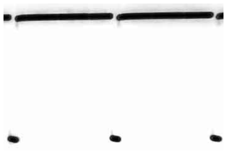
WF-126



WF-127



WF-128



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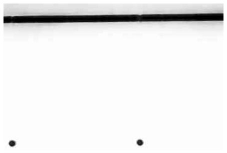

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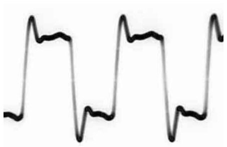

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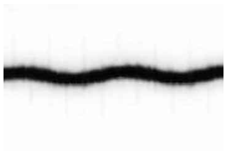

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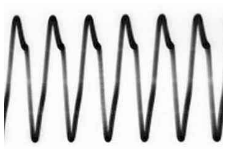

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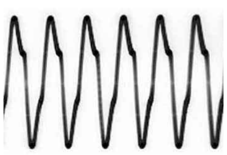

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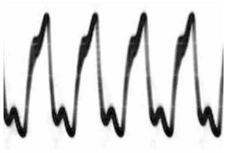

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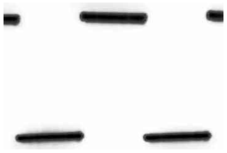

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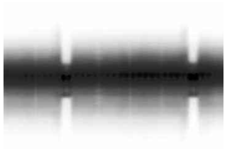

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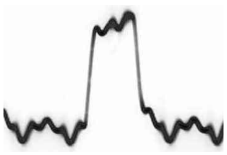

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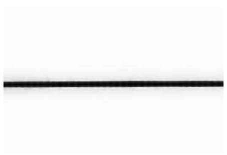

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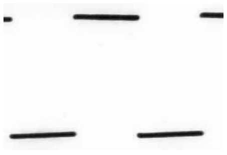

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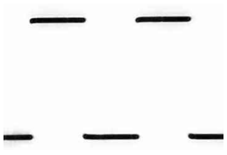

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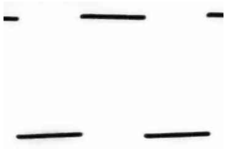

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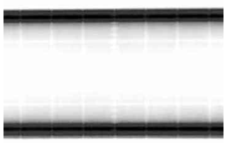

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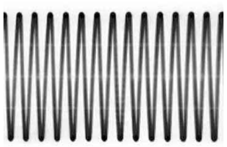

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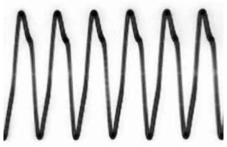

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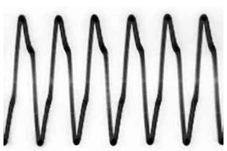

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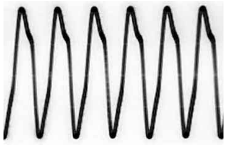

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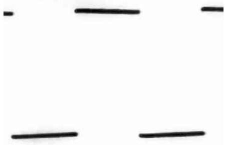

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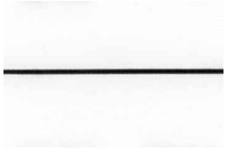

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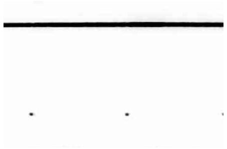

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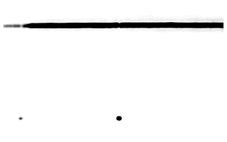

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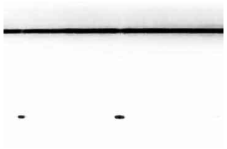

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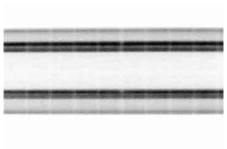

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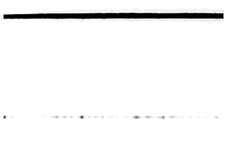

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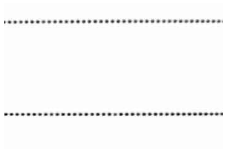

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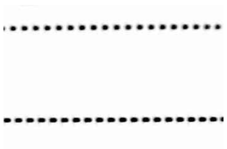

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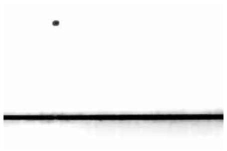

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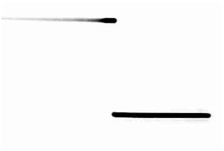

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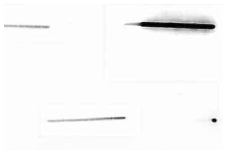

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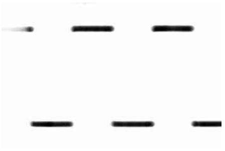

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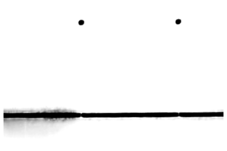
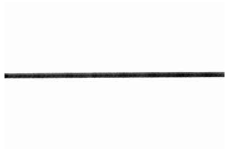
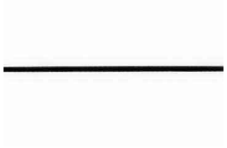
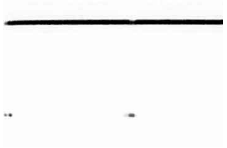
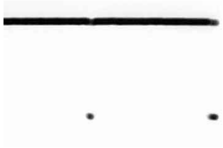
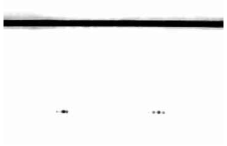
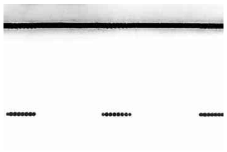
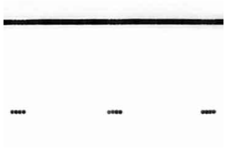
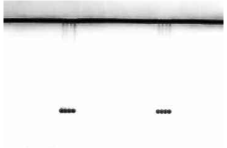
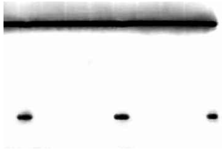
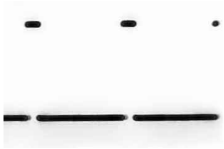
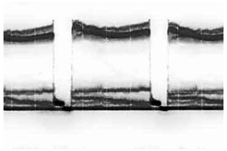
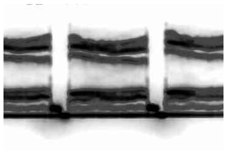
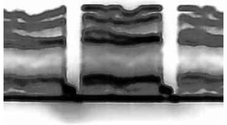
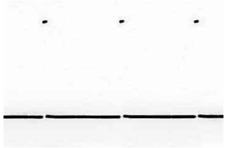
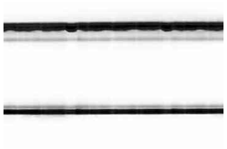
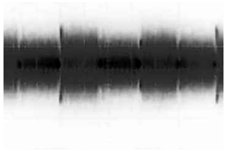
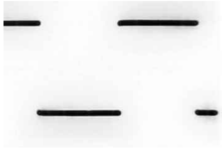
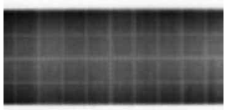
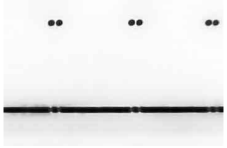
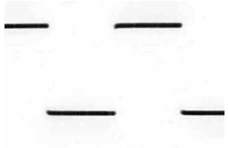
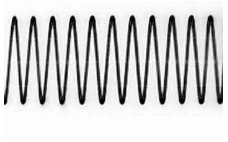
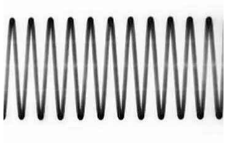
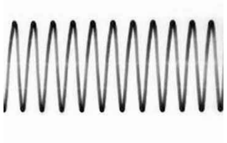
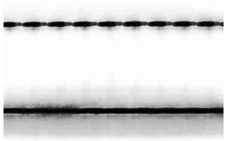
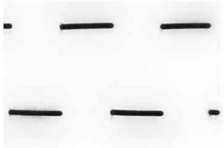
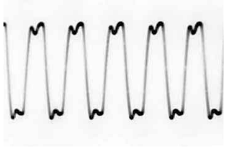
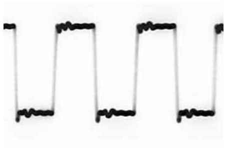
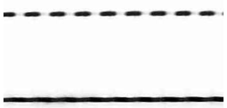
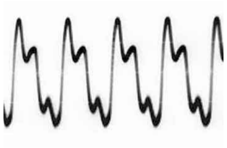
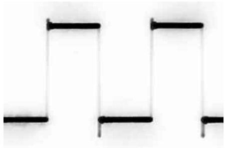
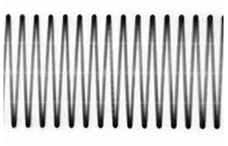
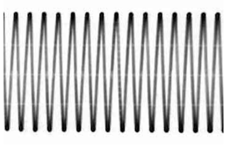
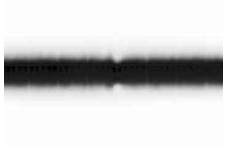
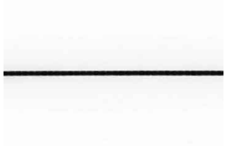
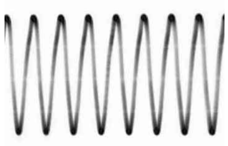
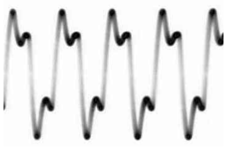
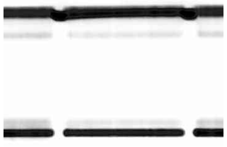
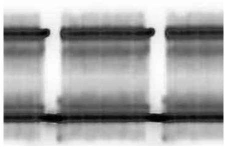
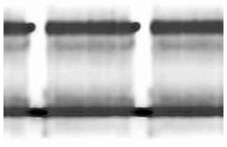
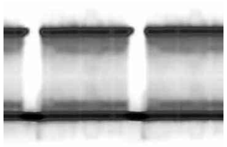


WF-161 	**WF-162** 	**WF-163** 	**WF-164** 	**WF-165** 
WF-166 	**WF-167** 	**WF-168** 	**WF-169** 	**WF-170** 
WF-171 	**WF-172** 	**WF-173** 	**WF-174** 	**WF-175** 
WF-176 	**WF-177** 	**WF-178** 	**WF-179** 	**WF-180** 
WF-181 	**WF-182** 	**WF-183** 	**WF-184** 	**WF-185** 
WF-186 	**WF-187** 	**WF-188** 	**WF-189** 	**WF-190** 
WF-191 	**WF-192** 	**WF-193** 	**WF-194** 	**WF-195** 
WF-196 	**WF-197** 	**WF-198** 	**WF-199** 	**WF-200** 

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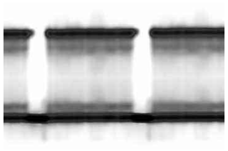

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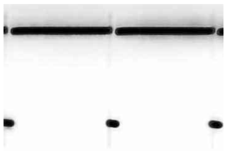

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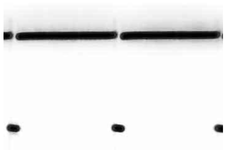

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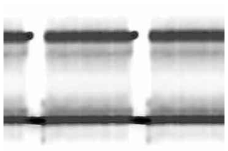

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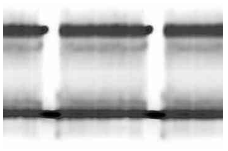

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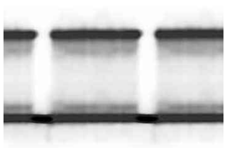

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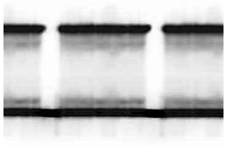
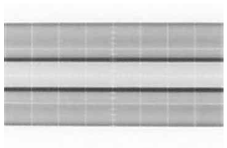
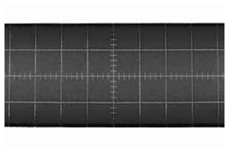


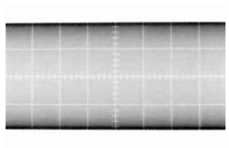
WF-208



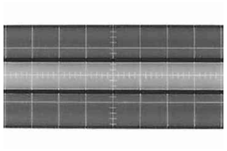
WF-209



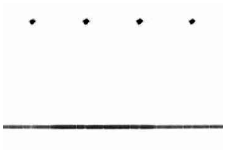
WF-210



WF-211



WF-212



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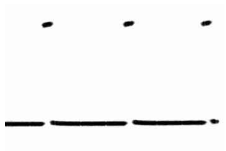

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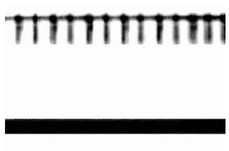

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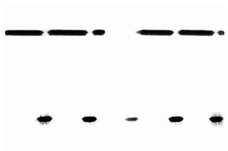
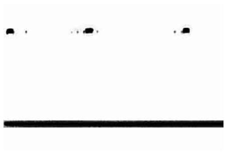


WF-216



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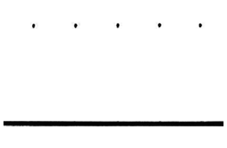

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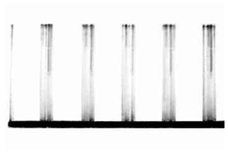

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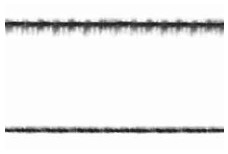

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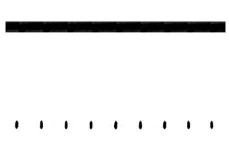

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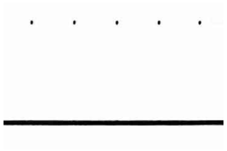

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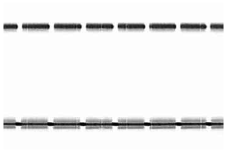

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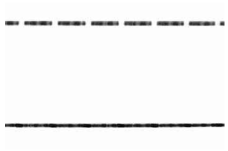

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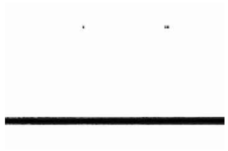

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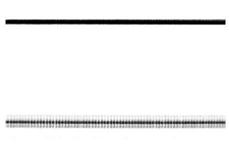

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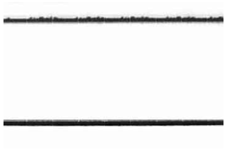

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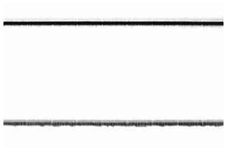

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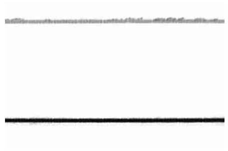

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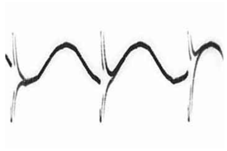

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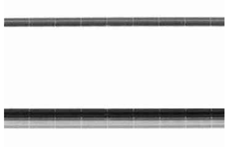

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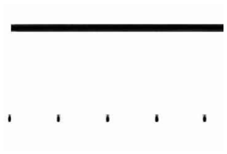

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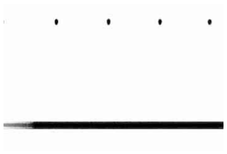

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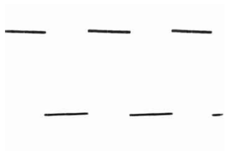

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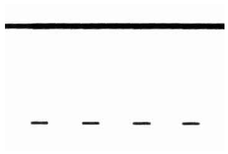

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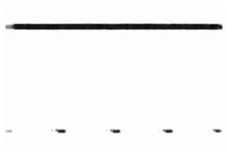

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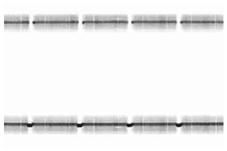
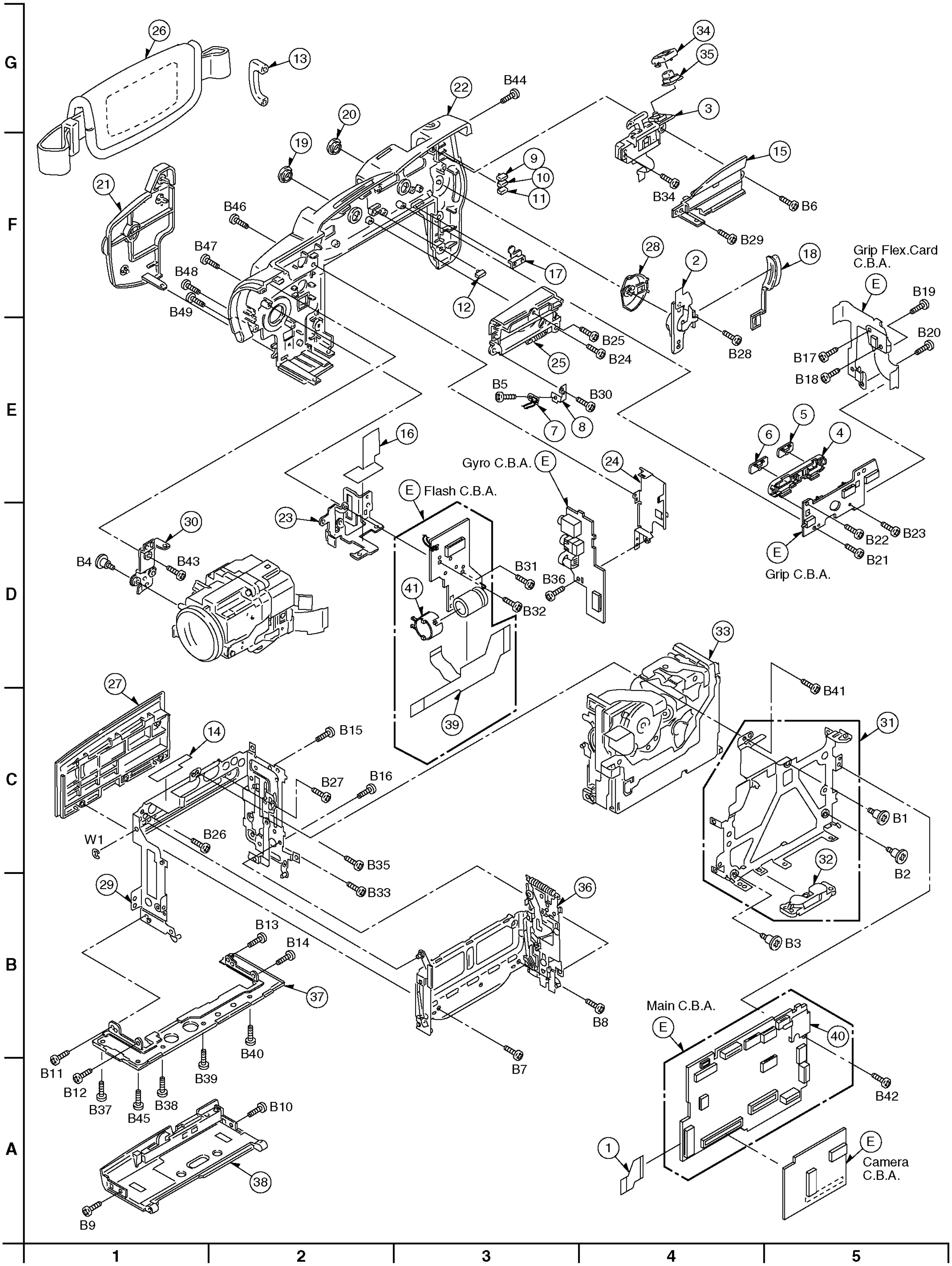


14 EXPLODED VIEWS

14.1. FRAME & CASING SECTION (1)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B46
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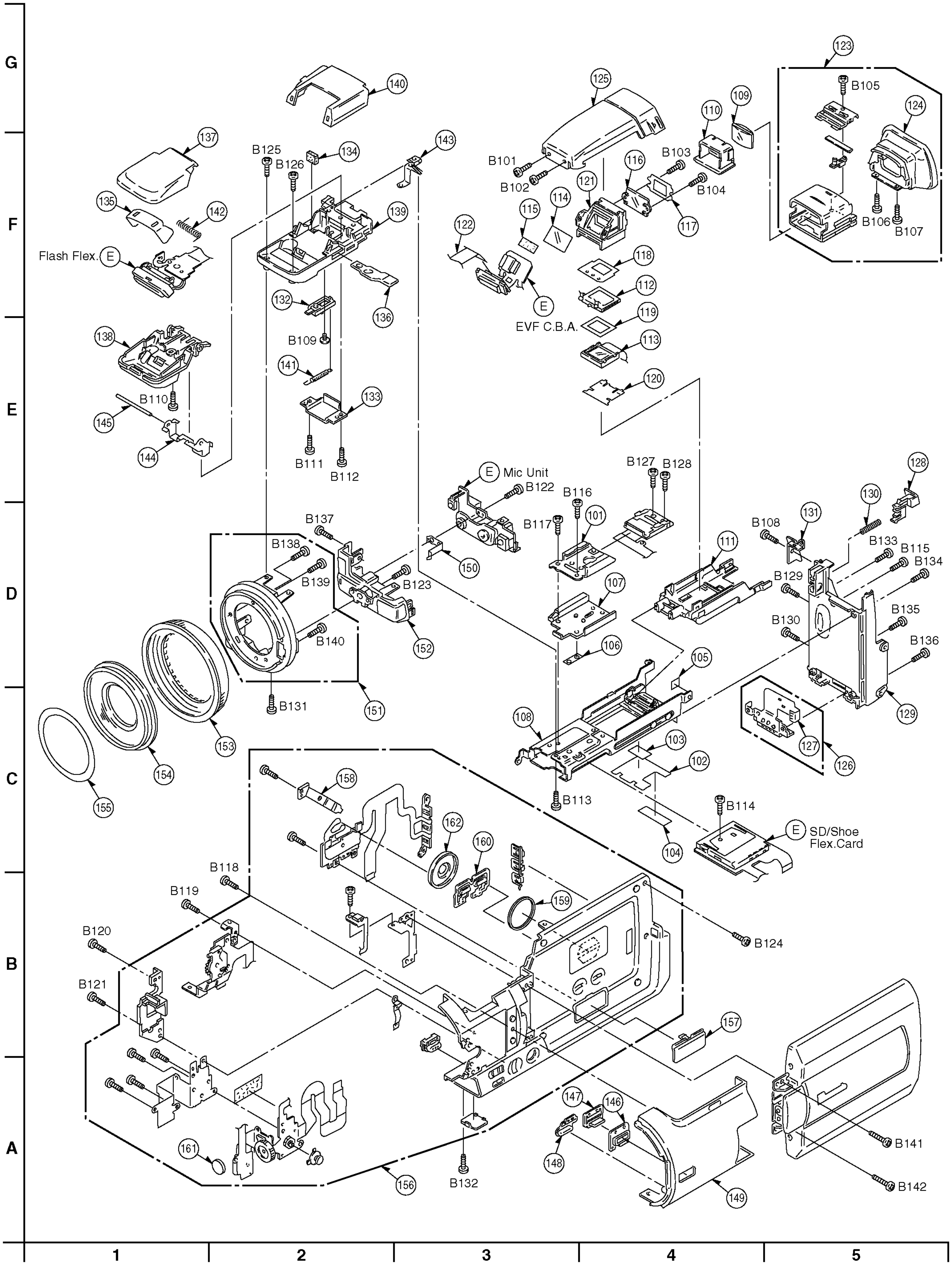
B6
B29
B47
B48
B49
17
12
28
2
18
Grip Flex.Card C.B.A.
E
B19
B20
B25
B24
25
B28
B17
B18
B5
B30
7
8
16
6
5
4
Gyro C.B.A.
E
24
E
Flash C.B.A.
23
30
B4
B43
B31
B36
B32
41
B22
B23
B21
E
Grip C.B.A.
33
39
27
14
B15
B41
31
B27
B16
B1
W1
B26
B2
B35
B33
32
29
36
B3
B13
B14
37
B8
Main C.B.A.
E
40
B11
B40
B12
B39
B7
B42
B37
B45
B38
B10
1
E
Camera C.B.A.
38
B9

14.2. FRAME & CASING SECTION (2)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137
143
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B126
B101
B103
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B104
121
114
117
B106
B107
135
142
139
115
122
Flash Flex.
E
118
112
132
136
119
EVF C.B.A.
E
138
B109
113
141
120
133
B110
145
144
B111
B112
E
Mic Unit
B122
B127
B128
128
B116
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101
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B117
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B140
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B131
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129
108
153
103
102
127
126
154
158
155
B113
B114
162
E
SD/Shoe
Flex.Card
160
104
B118
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B119
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B132
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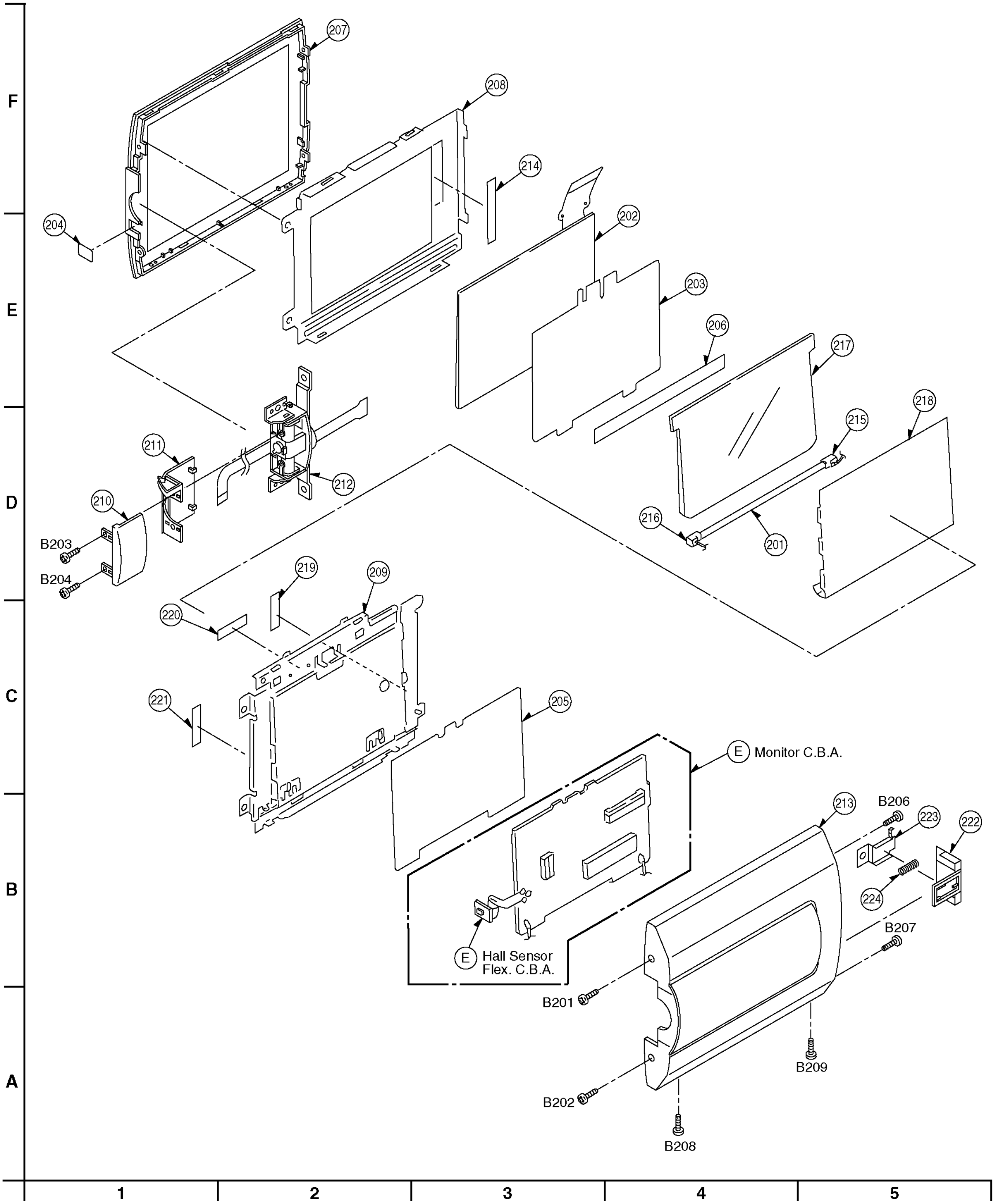
B142

14.3. LCD SECTION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B203
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221
205
E Monitor C.B.A.
213
B206
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222
224
B207
E Hall Sensor Flex. C.B.A.
B201
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B202
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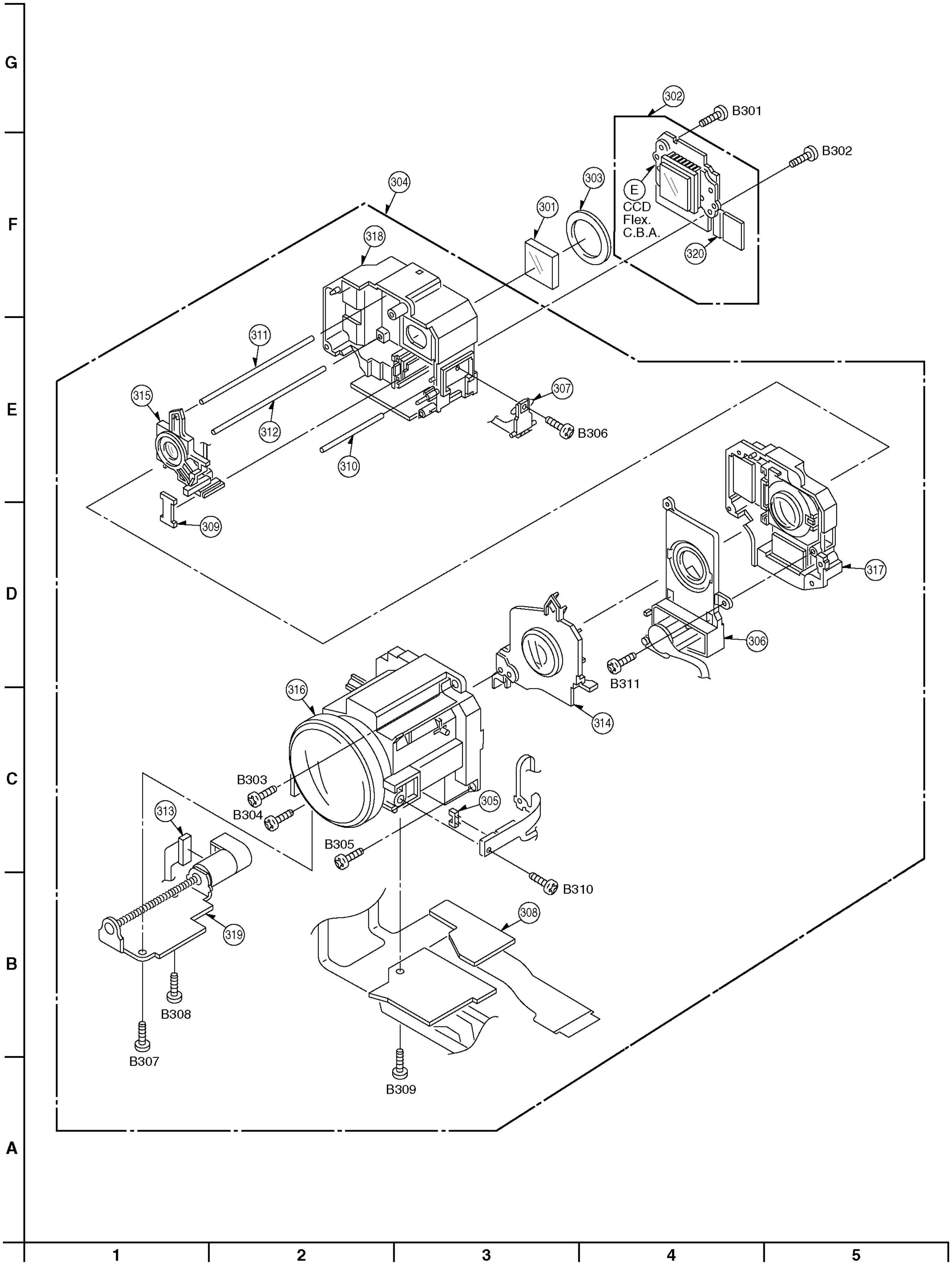
14.4. CAMERA LENS SECTION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B302
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CCD
Flex.
C.B.A.
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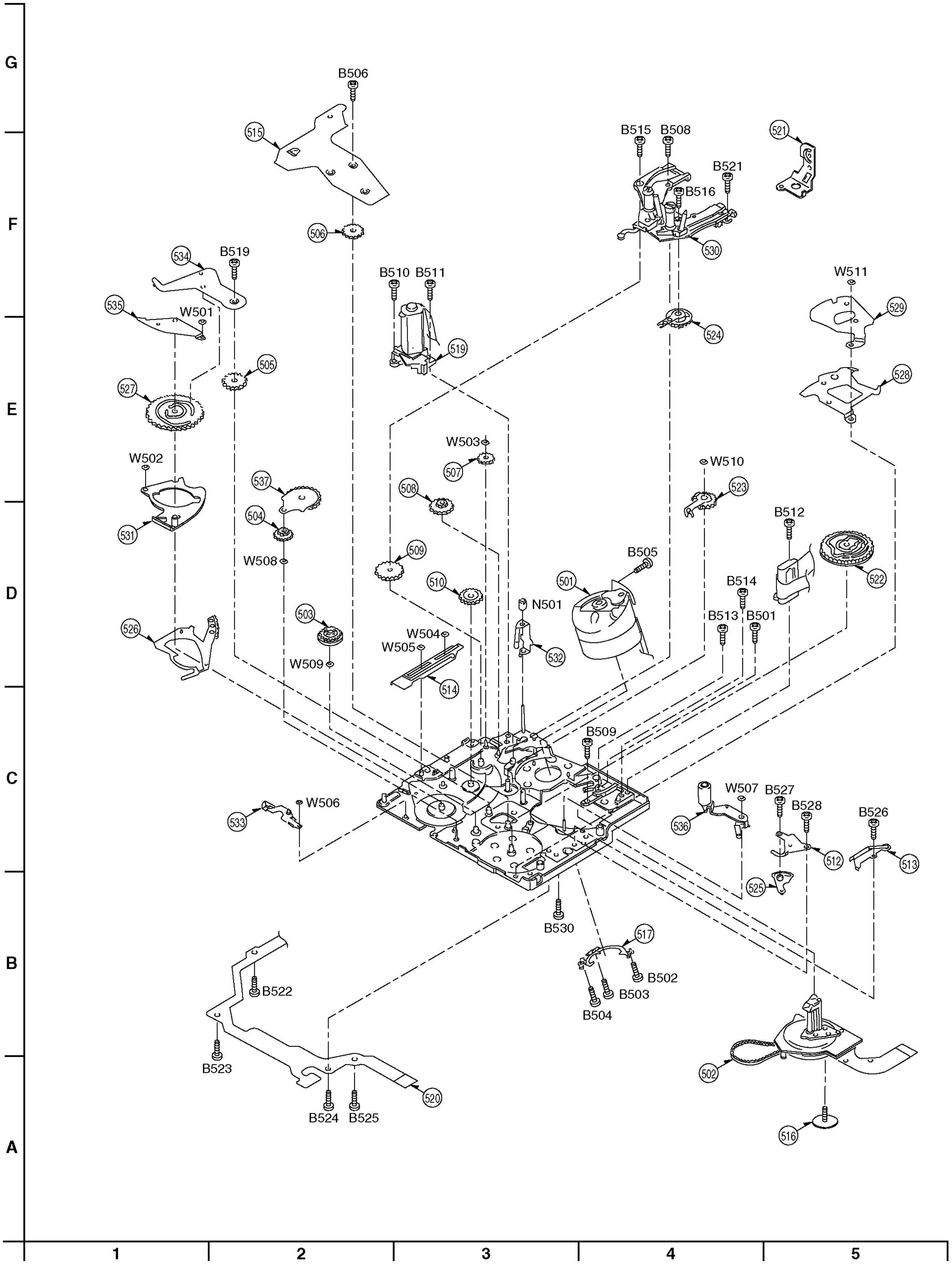
14.5. VCR MECHANISM SECTION (1)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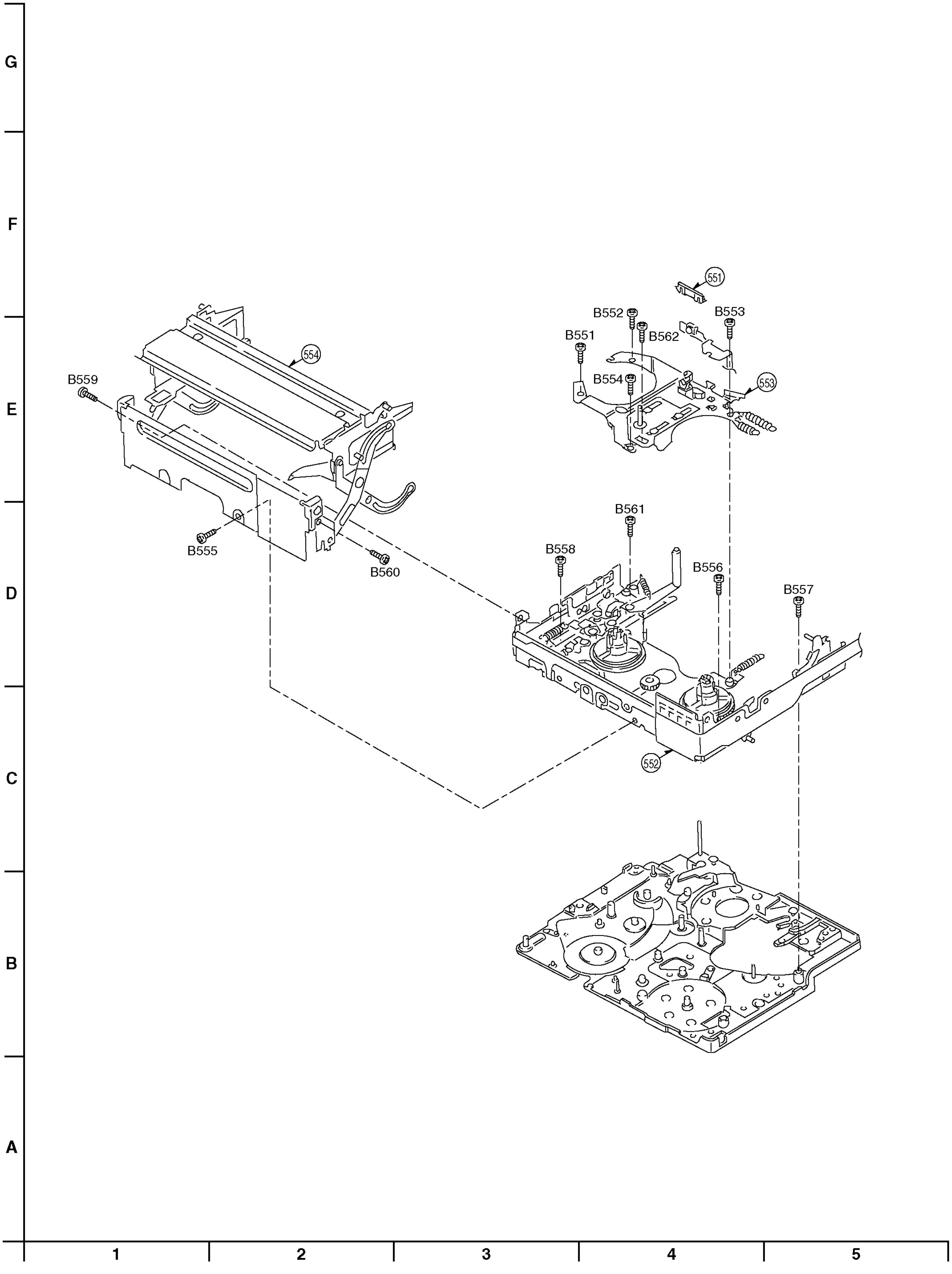
14.6. VCR MECHANISM SECTION (2)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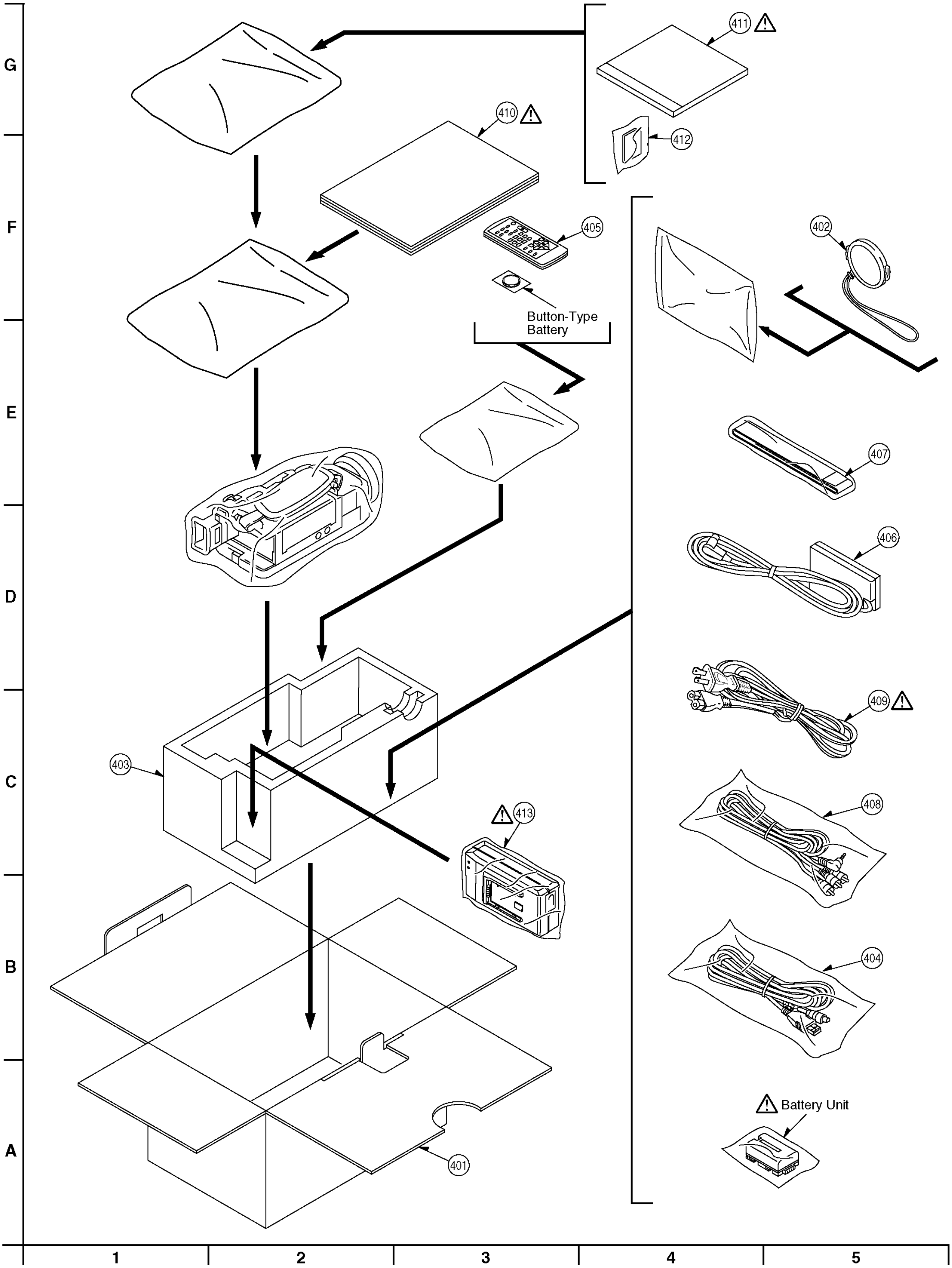
552

14.7. PACKING PARTS & ACCESSORIES SECTION



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411 ⚠
410 ⚠
412
405
402
Button-Type Battery
407
406
409 ⚠
403
⚠ 413
408
404
⚠ Battery Unit
401

15 REPLACEMENT PARTS LIST

15.1. FRAME & CASING SECTION (1) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
1	VWJ1490	GYRO FLEX.	
2	N9ZZ00000072	S/S POWER FLEX.	
3	N9ZZ00000026	ZOOM UNIT	
4	VGQ6255	MODE SELECT KNOB HOLDER	
5	VGU8568	MODE SELECT KNOB	
6	VGU8903	CARD MODE SELECT KNOB	
7	VEK8778	DEW SENSOR U.	
8	VMP7037	DEW SENSOR ANGLE	
9	VGL0873	PANEL LIGHT	
10	VGL0873	PANEL LIGHT	
11	VGL0873	PANEL LIGHT	
12	VGL0898	PANEL LIGHT (SD)	
13	VGQ5851	GRIP BELT PIECE	
15	VGQ6267	L COVER	
16	VGQ6306	CAPACITOR BARRIER	
17	VGU8420	RESET BUTTON	
18	VGU8422	S/S BUTTON	
19	VKF2971	MECHA. ADJ. PIECE	
20	VKF2971	MECHA. ADJ. PIECE	
21	VKF3386	JACK COVER	
22	VKM5785	SIDE CASE (L)	
23	VMP6905	GRIP BELT ANGLE	
24	VMP6907	JACK FRAME	
25	VXA7215	SD LID U.	
26	VYC0833	GRIP BELT	
27	VYK0E50	CASSETTE COVER U.	
28	VYQ1857	POWER BUTTON U.	
29	VYQ2216	MAIN FRAME (1) U.	
30	VYK0A04	LENS FRAME U.	
31	VYQ2212	MECHA. FRAME U.	
32	VMD3345	TRIPOD FRAME	
33	VXY1626	MECHA. U.	
34	VGQ5665	PHOTO BUTTON GUIDE	
35	VGU8416	PHOTO BUTTON	
36	VXA6637	OUT HOLDER U.	
37	VYK0A20	BOTTOM FRAME U.	
38	VYK0B04	BOTTOM COVER U.	
39	VWJ1489	FRONT FLEX. CARD	
40	VSC5090	HEAD AMP SHIELD CASE	
41	VGQ6256	CAPACITOR HOLDER	
B1	VHD1133	SCREW	
B2	VHD1133	SCREW	
B3	VHD1133	SCREW	
B4	VHD1353	SCREW	
B5	XQN2+B2FZ	SCREW	
B6	VHD1365	SCREW	
B7	VHD1384	SCREW	
B8	VHD1384	SCREW	
B9	VHD1376	SCREW	
B10	VHD1376	SCREW	
B11	XQN16+B2FN	SCREW	
B12	XQN16+B2FN	SCREW	
B13	XQN16+B2FN	SCREW	
B14	XQN16+B2FN	SCREW	
B15	XQS16+A2	SCREW	
B16	XQS16+A2	SCREW	
B17	XQN14+B12	SCREW	
B18	XQN14+B12	SCREW	
B19	XQN14+B12	SCREW	
B20	XQN14+B12	SCREW	
B21	XQN16+BJ3FN	SCREW	
B22	XQN16+BJ3FN	SCREW	
B23	XQN16+BJ3FN	SCREW	
B24	XQN16+BJ3FN	SCREW	
B25	XQN16+BJ3FN	SCREW	
B26	XQN16+BJ3FN	SCREW	
B27	XQN16+BJ3FN	SCREW	
B28	XQN16+BJ4FZ	SCREW	
B29	XQN16+BJ4FZ	SCREW	
B30	XQN16+BJ4FZ	SCREW	
B31	XQN16+BJ4FZ	SCREW	
B32	XQN16+BJ4FZ	SCREW	
B33	XQN16+BJ4FZ	SCREW	
B34	XQN16+BJ6FN	SCREW	
B35	XQN16+BJ6FN	SCREW	
B36	XQN16+B3FN	SCREW	
B37	XQN16+B4FZ	SCREW	
B41	XQN16+B4FN	SCREW	
B42	XQN16+B4FN	SCREW	
B43	XQN16+BJ4FZ	SCREW	
B46	XQN16+B4FZ	SCREW	
B47	XQN16+B4FZ	SCREW	
B48	XQN16+B4FZ	SCREW	
B49	XQN16+B11FZ	SCREW	
W1	XUC2FP	WASHER	

15.2. FRAME & CASING SECTION (2) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
101	VXA7219	SHOE TERMINAL SOCKET	
102	VGQ6285	EVF FLEX. BARRIER	
103	VGQ5983	TAPE	
104	VGQ6296	BARRIER FIXING TAPE	
105	VGQ6304	SCREW COVER SHEET	
106	VGQ6327	TOP ALUMINUM FOIL	
107	VKM5680	TOP PIECE	
108	VXA7312	EVF SLIDE FRAME U.	
109	VDL1220	EVF LENS	
110	VGQ5832	EVF LENS HOLDER	
111	VYK0F24	EVF CASE (LOWER)	
112	A2CD00000030	BACK LIGHT	
113	L5BDDXH00006	EVF LCD PANEL	
114	VDL1151	EVF REFLECTOR	
115	VGQ5654	REFLECTOR CUSHION	
116	VGQ5833	EVF PROTECT COVER	
117	VGQ5835	PROTECT COVER SHEET	
118	VGQ6268	LCD MASK	
119	VGQ6269	EVF HOLD TAPE	
120	VGQ6270	LCD HOLD SHEET	
121	VKM5590	LCD HOLD PIECE	
122	VWJ1422	EVF FLEX.	
123	VYK0A08	EVF VIEW ADJ. U.	

Ref. No.	Part No.	Part Name & Description	Remarks
124	VMG1396	EYE CAP	
125	VYK0E51	EVF CASE U.(UPPER)	
126	VEK9053	BATTERY CATCHER U.	
127	VWJ1425	POWER BUS FLEX.	
128	VGU8923	BATTERY LOCK BUTTON	
129	VKM5792	REAR CASE	
130	VMB3210	BATTERY LOCK SPRING	
131	VMP6943	SHOULDER BELT ANGLE	
132	VGQ6251	LOCK LEVER	
133	VGQ6307	FLEX. TAP PIECE	
134	VGQ6326	CUSHION	
135	VGQ6338	INSULATION BARRIER	
136	VGU8902	FLASH OPEN BUTTON	
137	VKM5788	FLASH CASE (UPPER)	
138	VKM5668	FLASH CASE (LOWER)	
139	VKM5790	FLASH BASE	
140	VKM5791	TOP CASE	
141	VMB3556	FLASH OPEN SPRING	
142	VMB3557	POP SPRING	
143	VMC1728	EARTH SPRING	
144	VMP6903	BASE ANGLE	
145	VMS7027	BASE SHAFT	
146	VGK2721	OIS BUTTON ORNAMENT	
147	VGU8904	OIS BUTTON	
148	VGU8905	FOCUS BUTTON	
149	VKM5863	R COVER	
150	VMP6915	FRONT EARTH PLATE	
151	VXP2147	MF U.	
152	VYK0D62	FRONT CASE (1) U.	
153	VDW0763	LENS HOOD	
154	VDW0764	HOOD PIECE	
155	VGH4502	HOOD NAME PLATE	
156	N9ZZ00000128	SIDE CASE (R)(1) U.	
157	VKF3489	EVR COVER	
158	VMP6532	SPEAKER ANGLE	
159	VGQ5908	SPEAKER SHEET	
160	VGU8591	MULTI/TITLE BUTTON	
161	VSB0407	LITHIUM BATTERY	
162	L0AA02A00014	SPEAKER U.	
B101	VHD1377	SCREW	
B102	VHD1377	SCREW	
B103	XQN16+BJ4FZ	SCREW	
B104	XQN16+BJ4FZ	SCREW	
B105	XQN14+BJ3FZ	SCREW	
B106	XQN14+BJ3FZ	SCREW	
B107	XQN14+BJ3FZ	SCREW	
B108	XQN16+BJ4	SCREW	
B109	VHD1152	SCREW	
B110	XQN16+BJ5FZ	SCREW	
B111	XQN16+B4	SCREW	
B112	XQN16+B4	SCREW	
B113	XQN16+BJ5	SCREW	
B114	XQN16+B16FN	SCREW	
B115	XQN16+B25FZ	SCREW	
B116	XQN2+B35FZ	SCREW	
B117	XQN2+B35FZ	SCREW	
B118	XQN16+BJ5	SCREW	
B119	XQN16+BJ5	SCREW	
B120	XQN16+BJ5	SCREW	
B121	XQN16+BJ5	SCREW	
B124	XQN16+B2FZ	SCREW	
B125	XQN16+B6FZ	SCREW	
B126	XQN16+B6FZ	SCREW	
B127	XQN2+A45FZ	SCREW	
B128	XQN2+A45FZ	SCREW	
B129	XQN16+BJ6FZ	SCREW	
B130	XQN16+BJ6FZ	SCREW	
B131	XQN16+B6FN	SCREW	
B132	XQN16+B45FZ	SCREW	
B133	XQN16+B4FZ	SCREW	
B134	XQN16+B4FZ	SCREW	
B135	XQN16+B4FZ	SCREW	
B136	XQN16+B4FZ	SCREW	
B138	XQN16+BJ4	SCREW	
B139	XQN16+BJ4	SCREW	
B140	XQN16+BJ4	SCREW	
B141	VHD1448	SCREW	
B142	VHD1448	SCREW	

15.3. LCD SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
201	KC56D1889DH	FLUORESCENT TUBE	
202	EDTCA29QJ0	LCD PANEL U.	
203	VGL0941	DIFFUSION SHEET	
204	VGQ4758	PROTECT SHEET	
205	VGQ6640	LCD INSULATION BARRIER	
206	VGL0940	DBEF SHEET	
207	VKM5794	LCD CASE (LOWER)) U.	
208	VSC5280	LCD SHIELD CASE	
209	VMP6945	LCD FRAME	
210	VGQ6253	HINGE COVER (UPPER)	
211	VGQ6254	HINGE COVER (LOWER)	
212	VXD0353	LCD HINGE (1) U.	
213	VYK0D59	LCD CASE (UPPER) U.	
214	VGQ5810	MF INSULATION SHEET	
215	VGQ6138	FLUORESCENCE TUBE RUBBER	
216	VGQ6138	FLUORESCENCE TUBE RUBBER	
217	VKW2909	LIGHT GUIDE PLATE	
218	VGL0929	REFLECTION SHEET	
219	VGQ6170	LCD PANEL FIXING SHEET(B)	
220	VGQ6170	LCD PANEL FIXING SHEET(B)	
221	VGQ6170	LCD PANEL FIXING SHEET(B)	
222	VGQ6252	LCD LOCK PIECE	
223	VMP6913	LCD LOCK PLATE	
224	VMB3554	LCD LOCK SPRING	
B201	VHD1449	SCREW	
B202	VHD1449	SCREW	
B203	VHD1451	SCREW	
B204	VHD1451	SCREW	
B205	XQN16+B25FN	SCREW	
B206	XQN16+B25FZ	SCREW	
B207	XQN16+B25FZ	SCREW	
B208	XQN16+B25FZ	SCREW	
B210	XQS16+AJ3	SCREW	

15.4. CAMERA LENS SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
301	VDL1217	CRYSTAL FILTER	
302	VEK9318	CCD U.	
303	VMX3070	CCD CUSHION	
304	VXW0502	LENS U.	
305	CNA1312K01VT	PHOTO SENSOR	
306	L9ZZ00000185	IRIS U.	
307	VEK8449	MR SENSOR U.	
308	VEK9298	LENS FLEX. U.	
309	VMA9961	SIDE YOKE	
310	VMS6491	F GUIDE POLE	
311	VMS6808	Z GUIDE POLE	
312	VMS6808	Z GUIDE POLE	
313	VMX3055	ZM CONNECTOR BASE	
314	VXP2126	2ND MOVING FRAME U.	
315	VXP2127	4TH MOVING FRAME U.	
316	VXQ1017	MAIN FRAME U.	
317	VXQ1018	3RD MOVING FRAME U.	
318	VXQ1019	MASTER FRANGE U.	
319	08S1E13F6NJ	ZOOM MOTOR U.	
320	VJB22315	CCD FLEX.	
B301	XQN16+CJ4FY	SCREW	
B302	XQN16+CJ4FY	SCREW	
B303	VHD1509	SCREW	
B304	VHD1509	SCREW	
B305	VHD1509	SCREW	
B306	VHD1508	SCREW	
B307	VHD1508	SCREW	
B308	VHD1508	SCREW	
B309	VHD1508	SCREW	
B310	VHD1508	SCREW	
B311	VHD1508	SCREW	

15.5. VCR MECHANISM SECTION (1) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
501	VEG1570	CYLINDER U.	
502	DFX25A7VWC	CAPSTAN U.	
503	VDG1284	DRIVE GEAR	
504	VDG1285	CENTER GEAR	
505	VDG1290	INTERFACE GEAR (C)	
506	VDG1291	INTERFACE GEAR (D)	
507	VDG1330	DECELERATION GEAR (A)	
508	VDG1331	DECELERATION GEAR (B)	
509	VDG1297	INTERFACE GEAR (A)	
510	VDG1303	INTERFACE GEAR (B)	
512	VMA9908	PULLEY COVER	
513	VMA9916	T4 GUIDE	
514	VMA9917	TENSION PLATE	
515	VMA0E52	GEAR COVER	
516	VHD1430	CAPSTAN HOLDER	
517	VMC1443	CYLINDER SPRING	
519	VEM0679	LOADING MOTOR U.	
520	VWJ1297	MECHANISM INTERFACE FLEX.	
521	VMP6271	RT FLEX. FRAME	
522	VSR0230	MODE SWITCH	
523	VXA6124	S LOAD GEAR U.	
524	VXA6125	T LOAD GEAR U.	
525	VXA6133	PULLEY	
526	VXA6134	CHASSIS RADON U.	
527	VXA6135	CAM GEAR U.	
528	VXA6136	PINCH BEETLE	
529	VXA6137	RELEASE BEETLE	
530	VXA6138	RAIL U.	
531	VXA6169	BOAT RADON U.	
532	VXA6184	S3 BASE U.	
533	VXL2814	EJECT LEVER U.	
534	VXL2815	TENSION LEVER U.	
535	VXL2816	EJECT ARM U.	
536	VXL2897	PINCH ARM U.	
537	VXL2818	IDLER U.	
B501	VHD1155	SCREW	
B502	VHD1372	SCREW	
B503	VHD1372	SCREW	
B504	VHD1372	SCREW	
B505	XQN14+B1FN	SCREW	
B506	VHD1160	SCREW	
B508	VHD1160	SCREW	
B509	VHD1406	SCREW	
B510	VHD1161	SCREW	
B511	VHD1161	SCREW	
B512	VHD1161	SCREW	
B513	VHD1161	SCREW	
B514	VHD1161	SCREW	
B515	VHD1162	SCREW	
B516	VHD1162	SCREW	
B519	VHD1163	SCREW	
B521	XQN12+B14FN	SCREW	
B522	XQN12+A1	SCREW	
B523	XQN12+A1	SCREW	
B524	XQN12+A1	SCREW	
B525	XQN12+A1	SCREW	
B526	XQN12+A1	SCREW	
B527	XQN12+A12FN	SCREW	
B528	XQN12+A12FN	SCREW	
B530	XQN16+B2	SCREW	
N501	VHN0324	NUT	
W501	VMX2028	WASHER	
W502	VMX2028	WASHER	
W503	VMX2028	WASHER	
W504	VMX2028	WASHER	
W505	VMX2028	WASHER	
W506	VMX2028	WASHER	
W507	VMX2028	WASHER	
W508	VMX2751	WASHER	
W509	VMX2752	WASHER	
W510	VMX2392	WASHER	
W511	VMX2028	WASHER	

15.6. VCR MECHANISM SECTION (2) PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
551	VMD2975	LED HOLDER	
552	VXA6537	SUB CHASSIS U.	
553	VXA6151	COVER PLATE U.	
554	VXA6159	CASSETTE UP U.	
B551	VHD1162	SCREW	
B552	VHD1162	SCREW	
B553	VHD1162	SCREW	
B554	VHD1162	SCREW	
B555	VHD1207	SCREW	
B556	VHD1164	SCREW	
B557	VHD1164	SCREW	
B558	VHD1171	SCREW	
B559	VHD1314	SCREW	
B560	VHD1314	SCREW	
B561	VHD1163	SCREW	
B562	VHD1163	SCREW	

15.7. PACKING PARTS & ACCESSORIES SECTION PARTS LIST

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
401	VPG0M81	PACKING	
402	VYP8255	HOOD CAP	
403	VPN5618	CUSHION	
404	VFA0366	USB CONNECTION CABLE	
405	N2QAEC000003	REMOTE CONTROLLER	
406	VEK8925	DC CABLE	K2GJ2DZ00011
407	VFC3506	SHOULDER BELT	
408	K2KC4CB00002	AV CABLE	
409	LSJA0282	AC CORD	△
410	LSQT0512A	OPERATING INSTRUCTIONS	△
411	LSQF0512	MKE F.B.K	△
412	LSFT0259	SD CARD	
413	PV-DAC11C-A	AC ADAPTOR	△

15.8. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified,
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Remarks
■	VEP03F95G	MAIN C.B.A.	(RTL)
■	VEP23536A	CAMERA C.B.A.	(RTL)
■	VEP22315A	CCD FLEX.CARD C.B.A.	(RTL)
■	VEP06E28A	GRIP C.B.A.	(RTL)
■	VEP06E30A	GRIP FLEX. CARD U.	(RTL)
■	VEP04781C	GYRO C.B.A.	(RTL)
■	VEP07A42A	FLASH C.B.A.	(RTL)
■	VEP28285A	EVF C.B.A.	(RTL)
■	VEP000U2A	SD FLEX. CARD U.	(RTL)
■	VEP07A43A	FLASH FLEX. CARD U.	(RTL)
■	VEP26254C	MONITOR C.B.A.	(RTL)
■	VEP04780A	FRONT C.B.A.	(RTL)
■	VEK9324	MIC UNIT	(RTL)
■	VEP03F95G	MAIN C.B.A.	(RTL)
C600	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C602	ECUX1H180JCQ	C.CAPACITOR CH 50V 18P	
C604	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C605	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C606	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C607	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C610	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C611	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C612	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C614	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C616	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C617	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C618	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C619	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C620	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C625	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C626	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C627	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C628	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C629	ECUV1A335KBN	C.CAPACITOR CH 10V 3.3U	F1J1A335A005
C630	ECUX1C682KBQ	C.CAPACITOR CH 16V 6800P	
C631	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C633	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C666	ECUM1C225KBM	C.CAPACITOR CH 16V 2.2U	
C672	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1001	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C1004	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1005	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1006	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091

Ref. No.	Part No.	Part Name & Description	Remarks
C1011	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1012	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C1021	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1022	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C1032	F1J0J475A006	CERAMIC CAPACITOR	
C1033	ECUX1E271KBQ	C.CAPACITOR CH 25V 270P	
C1034	ECUX1H100CCQ	C.CAPACITOR CH 50V 10P	
C1041	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1042	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C1052	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C1053	ECUX1C223KBQ	C.CAPACITOR CH 16V 0.022U	
C1054	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1056	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C1061	ECUV1A335KBN	C.CAPACITOR CH 10V 3.3U	F1J1A335A005
C1062	ECUV1A335KBN	C.CAPACITOR CH 10V 3.3U	F1J1A335A005
C1082	ECUM1E105KBM	C.CAPACITOR CH 25V 1U	
C1101	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	
C1102	ECUV1C224KBN	C.CAPACITOR CH 16V 0.22U	ECJ2VB1C224K
C1103	ECUX1C223KBQ	C.CAPACITOR CH 16V 0.022U	
C1104	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1105	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1111	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1112	ECUX1C333KBQ	C.CAPACITOR CH 16V 0.033U	
C1113	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	
C1114	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	
C1121	ECUM0J684KBV	C.CAPACITOR CH 6.3V 0.68U	
C1122	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C1131	ECUM0J684KBV	C.CAPACITOR CH 6.3V 0.68U	
C1132	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1141	F1J1A824A003	CERAMIC CAPACITOR	
C1142	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	ECJ1XB1H222K
C1151	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1152	ECUX1C333KBQ	C.CAPACITOR CH 16V 0.033U	
C1153	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	
C1154	ECUX1H820JCQ	C.CAPACITOR CH 50V 82P	ECJ0XC1H820J
C1155	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1211	ECUM1A105KBV	C.CAPACITOR CH 10V 1U	
C1212	ECUM1A105KBV	C.CAPACITOR CH 10V 1U	
C1215	ECUM1A105KBV	C.CAPACITOR CH 10V 1U	
C1221	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1222	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	

Ref. No.	Part No.	Part Name & Description	Remarks
C1223	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1224	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1225	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1226	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1227	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1228	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C1231	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1239	VCS0JP106R	SOLID TANTALUM CAPACITOR	F3E0J106A005
C1241	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1242	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1248	ECST0JX476Z	T.CAPACITOR CH 6.3V 47U	
C1251	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C1252	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C1281	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C1282	ECUM1E105KBM	C.CAPACITOR CH 25V 1U	
C1301	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C1302	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C1311	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C1312	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C1321	ECST0GY226Z	T.CAPACITOR CH 4V 22U	
C1322	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1323	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1341	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C1451	ECUM1A105KBV	C.CAPACITOR CH 10V 1U	
C1456	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C1491	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C2001	F1J0J106A014	CERAMIC CAPACITOR	
C2002	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C2004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2006	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2009	ECUX1H060CCQ	C.CAPACITOR CH 50V 6P	
C2010	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	
C2011	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2013	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2014	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2015	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C2017	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2021	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2022	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	
C2024	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2028	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	

Ref. No.	Part No.	Part Name & Description	Remarks
C2029	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2030	ECUX1H100CCQ	C.CAPACITOR CH 50V 10P	
C2031	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C2032	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2033	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C2034	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C2037	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C2038	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2039	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2041	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2043	ECUX1H100CCQ	C.CAPACITOR CH 50V 10P	
C2044	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2048	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C2050	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2052	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2055	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2201	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2202	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2203	F1J0J475A006	CERAMIC CAPACITOR	
C2204	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2205	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2206	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2207	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2211	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2212	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2213	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2216	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2217	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2218	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2219	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2220	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C2221	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C2222	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C2223	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C2225	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C2226	VCS0JP106R	SOLID TANTALUM CAPACITOR	F3E0J106A005
C2231	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C2232	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3001	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3003	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3004	ECST0GY226Z	T.CAPACITOR CH 4V 22U	

Ref. No.	Part No.	Part Name & Description	Remarks
C3005	F1J0J475A006	CERAMIC CAPACITOR	
C3006	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3007	F1J0J475A006	CERAMIC CAPACITOR	
C3008	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3009	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3010	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3012	F1J0J475A006	CERAMIC CAPACITOR	
C3014	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3015	F1J0J475A006	CERAMIC CAPACITOR	
C3016	ECST0GY226Z	T.CAPACITOR CH 4V 22U	
C3017	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3018	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3019	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3020	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3021	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3022	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3023	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3024	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3025	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3026	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3027	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3029	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3030	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3031	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3032	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3033	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3034	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3035	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3036	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3037	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3038	ECST0GY476Z	T.CAPACITOR CH 4V 47U	F3F0G476A009
C3039	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3040	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	
C3041	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3042	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	
C3043	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3044	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3045	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3046	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3047	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3048	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3049	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	

Ref. No.	Part No.	Part Name & Description	Remarks
C3051	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3052	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3053	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3054	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3101	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3102	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3103	ECST0JX476Z	T.CAPACITOR CH 6.3V 47U	
C3104	F1J0J475A006	CERAMIC CAPACITOR	
C3105	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3106	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3107	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3108	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C3109	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3110	ECST0JX107ZR	T.CAPACITOR CH 6.3V 100U	F3H0J1070005
C3111	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3112	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	
C3113	F1J0J106A013	CERAMIC CAPACITOR	
C3114	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3115	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3116	F1J0J475A006	CERAMIC CAPACITOR	
C3117	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	
C3119	ECST0JX107ZR	T.CAPACITOR CH 6.3V 100U	F3H0J1070005
C3120	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C3121	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3122	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C3125	F1J0J475A006	CERAMIC CAPACITOR	
C3126	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3127	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3128	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	
C3129	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3131	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	
C3132	F1J0J475A006	CERAMIC CAPACITOR	
C3134	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3136	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3137	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3138	VCS0JP106R	SOLID TANTALUM CAPACITOR	F3E0J106A005
C3139	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3140	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3141	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3142	F3E0G1060002	ELECTROLYTIC CAPACITOR	
C3143	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3202	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	

Ref. No.	Part No.	Part Name & Description	Remarks
C3203	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3204	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3205	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3206	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3207	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3209	F1J0J106A014	CERAMIC CAPACITOR	
C3211	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3215	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3218	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3220	VCS0JP106R	SOLID TANTALUM CAPACITOR	F3E0J106A005
C3221	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3222	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3223	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3226	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3227	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3229	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C3252	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3253	ECUX1H221JCQ	C.CAPACITOR CH 50V 220P	
C3254	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3255	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3256	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C3257	F1J0J475A006	CERAMIC CAPACITOR	
C3259	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3401	F1J0J475A006	CERAMIC CAPACITOR	
C3402	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C3404	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C3405	F1J0J106A014	CERAMIC CAPACITOR	
C3406	ECUE1H020CCQ	C.CAPACITOR CH 50V 2P	ECJ0EC1H020C
C3407	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3408	ECUE1H020CCQ	C.CAPACITOR CH 50V 2P	ECJ0EC1H020C
C3410	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3411	ECUX0J105VBV	C.CAPACITOR CH 6.3V 1U	
C3413	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3414	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3415	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3416	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	
C3417	ECUX1H050CCQ	C.CAPACITOR CH 50V 5P	
C3418	ECUX1H120JCQ	C.CAPACITOR CH 50V 12P	ECJ0EC1H120J
C3419	F1J0J475A006	CERAMIC CAPACITOR	
C3420	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3421	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3422	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	

Ref. No.	Part No.	Part Name & Description	Remarks
C3423	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3424	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3425	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3426	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3427	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3428	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3429	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3430	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3431	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3432	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3433	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3437	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3439	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3441	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3442	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3501	F1J0J475A006	CERAMIC CAPACITOR	
C3502	F1J0J475A006	CERAMIC CAPACITOR	
C3503	F1J0J475A006	CERAMIC CAPACITOR	
C3504	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3505	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3506	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3507	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3508	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3509	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3510	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3511	F1H0J2250003	CERAMIC CAPACITOR	
C3512	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3513	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3514	F3H0G1060001	ELECTROLYTIC CAPACITOR	
C3515	F3H0G1060001	ELECTROLYTIC CAPACITOR	
C3516	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3517	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3518	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3519	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3521	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3522	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3523	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3551	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C3552	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C3553	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C3554	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C3555	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3556	F1J0J475A006	CERAMIC CAPACITOR	
C3557	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C3558	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3559	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3560	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3561	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C3562	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C3563	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C3564	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C3566	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3568	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C3569	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C3570	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C4502	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C4503	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C4504	F1J0J475A006	CERAMIC CAPACITOR	
C4505	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4506	F1J0J475A006	CERAMIC CAPACITOR	
C4507	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C4508	F1J0J475A006	CERAMIC CAPACITOR	
C4510	F1J0J475A006	CERAMIC CAPACITOR	
C4513	ECUX1C682KBQ	C.CAPACITOR CH 16V 6800P	
C4514	ECUX1C682KBQ	C.CAPACITOR CH 16V 6800P	
C5001	ECST0JX476Z	T.CAPACITOR CH 6.3V 47U	
C5002	F1J0J475A006	CERAMIC CAPACITOR	
C5003	F1J0J475A006	CERAMIC CAPACITOR	
C5004	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C5005	ECUX1E681KBQ	C.CAPACITOR CH 25V 680P	
C5006	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C5008	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C5012	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C5013	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C5014	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	ECJ1XC1H470J
C5021	ECUX1H080CCQ	C.CAPACITOR CH 50V 8P	
C5022	ECUX1H080CCQ	C.CAPACITOR CH 50V 8P	
C5023	ECUX1H080CCQ	C.CAPACITOR CH 50V 8P	
C5024	ECUX1H080CCQ	C.CAPACITOR CH 50V 8P	
C6501	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C6502	F1J0J475A006	CERAMIC CAPACITOR	
C6510	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C6511	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
D601	MA338	DIODE	MA2X338
D602	MA111	DIODE	MA2J111
D1001	B0JCGF000004	DIODE	
D1002	B0JCGF000004	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D1021	B0JCGF000004	DIODE	
D1031	B0JCGF000004	DIODE	
D1041	B0JCGF000004	DIODE	
D1051	MA111	DIODE	MA2J111
D1052	MA111	DIODE	MA2J111
D1082	MA111	DIODE	MA2J111
D1151	MA8160H	DIODE	MAZ81600H
D1152	MA111	DIODE	MA2J111
D2001	MA2SD2400L	DIODE	
D2002	MA2SD2400L	DIODE	
D2003	MA2SD2400L	DIODE	
D2004	MA2SD2400L	DIODE	
D2005	MA2SD2400L	DIODE	
D2009	MA2SD2400L	DIODE	
D2010	MA111	DIODE	MA2J111
D2012	MA112	DIODE	MA2J112
D2013	MA2SD2400L	DIODE	
D2501	MA2SD2400L	DIODE	
D3101	MA2S111	DIODE	
D6503	MA2SD2400L	DIODE	
D6504	MA781WA	DIODE	MA3S781D
D6508	MA2SD2400L	DIODE	
D6510	MA2SD2400L	DIODE	
D6516	MA2SD2400L	DIODE	
FP601	VJS3971D027	CONNECTOR (FEMALE) 27P	K1MN27B00008
FP603	VJS3971D021	CONNECTOR (FEMALE) 21P	K1MN21B00016
FP1002	VJS4322A014	CONNECTOR (FEMALE) 14P	
FP2201	VJS4012D018	CONNECTOR (FEMALE) 18P	K1MN18B00033
FP2202	VJS4273B010	CONNECTOR (FEMALE) 10P	
FP2203	VJS4298B018	CONNECTOR (FEMALE) 18P	K1MN18B00046
FP2204	VJS4036B008	CONNECTOR (FEMALE) 8P	
FP2205	VJS3971D021	CONNECTOR (FEMALE) 21P	K1MN21B00016
FP2206	K1MN14A00054	CONNECTOR	
FP3401	VJS4322A020	CONNECTOR (FEMALE) 20P	
FP4001	VJS3971B045	CONNECTOR (FEMALE) 45P	
FP4002	VJS4012B026	CONNECTOR (FEMALE) 26P	
FP5001	VJS3931B008	CONNECTOR (FEMALE) 8P	
IC601	C0HBA0000094	IC	
IC602	TC7SET08FU	IC	
IC1001	BD9711KV	IC	C0DBAHE00006
IC1311	S816A32AMC	IC	C0CBABF00006
IC1321	S816A26AMCT2	IC	C0ZBZ0000312
IC2001	C2DBLJ000051	IC	
IC2002	C0EBK0000038	IC	
IC2003	S3514AEFSTB	IC	C1ZBZ0001483
IC2005	NJM2143R	IC	C0ABAA000045
IC2006	NJM2407R	IC	C0BZBB000001
IC2008	C3EBFG000011	IC	
IC2009	M62367GP	IC	C0FBBD000080
IC2011	S817A28ANB	IC	C0CBAAA00013
IC2012	C0EBD0000019	IC	
IC2013	C0CBCAC00001	IC	
IC2014	XC62FP3402MR	IC	C0CBABC00104
IC2201	C0GBG0000023	IC	
IC3001	C1AB00001130	IC	
IC3002	AN2903FJQ	IC	
IC3004	C0FBZH000013	IC	
IC3201	C1AB00001132	IC	
IC3202	C1AB00001131	IC	
IC3401	TC7SH32FU	IC	
IC3402	TC7W74FU	IC	C0JBAF000321

Ref. No.	Part No.	Part Name & Description	Remarks
IC3403	TC7SH32FU	IC	
IC3405	C0ZBZ0000556	IC	
IC3407	TC7SH08FU	IC	C0JBZZ000138
IC3408	TC7SHU04FU	IC	C0JBAB000300
IC3451	C1AB00001279	IC	
IC3452	C3FBMD000078	IC	
IC3453	C2DBYY000015	IC	
IC3454	TC7SH04FU	IC	C0JBAB000298
IC3455	C0ZBZ0000559	IC	
IC3456	C1AB00001505	IC	
IC3457	C3ABPG000056	IC	
IC3501	C1AB00001280	IC	
IC3502	BA10324AFV	IC	C0ABJB000002
IC3503	BA7653AFV	IC	C9ZB00000281
IC3504	BA7653AFV	IC	C9ZB00000281
IC4501	AK4516AVF	IC	
IC5001	AN3732FJMEFV	IC	
IP1001	K5H3121A0005	FUSE	⚠
IP1003	K5H8011A0004	FUSE	⚠
L601	G1C100J00011	CHIP INDUCTOR	
L602	VLQ0911K100	COIL 10UH	G1C100K00019
L603	VLQ0911K100	COIL 10UH	G1C100K00019
L604	VLQ0807K100	COIL 10UH	G1C100K00024
L605	VLQ0807K220	COIL 22UH	G1C220K00016
L606	VLQ0807K220	COIL 22UH	G1C220K00016
L1011	VLQ0900M470	COIL 47UH	
L1021	VLQ0900M150	COIL 15UH	G1C150MA0025
L1031	VLQ0900M101	COIL 100UH	
L1041	VLQ0900M150	COIL 15UH	G1C150MA0025
L1061	VLQ0900M330	COIL 33UH	G1C330MA0025
L1062	VLQ0900M101	COIL 100UH	
L1211	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L1212	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L1215	VLQ0319M4R7	COIL 4.7UH	G1C4R7M00013
L1221	VLQ0319M4R7	COIL 4.7UH	G1C4R7M00013
L1222	VLQ0911K100	COIL 10UH	G1C100K00019
L1223	VLQ0911K100	COIL 10UH	G1C100K00019
L1224	VLQ0911K100	COIL 10UH	G1C100K00019
L1225	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L1226	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L1227	VLQ0911K100	COIL 10UH	G1C100K00019
L1231	G1C100MA0031	CHIP INDUCTOR	G1C100MA0030
L1241	VLQ0319M4R7	COIL 4.7UH	G1C4R7M00013
L1242	VLQ0779M4R7	COIL 4.7UH	G1C4R7MA0002
L1251	VLQ0780K100	COIL 10UH	G1C100KA0004
L1252	VLQ0911K100	COIL 10UH	G1C100K00019
L1281	VLQ0911K100	COIL 10UH	G1C100K00019
L1282	VLQ0911K100	COIL 10UH	G1C100K00019
L1311	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L1321	VLQ0319M4R7	COIL 4.7UH	G1C4R7M00013
L1341	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L2003	VLQ0911K100	COIL 10UH	G1C100K00019
L3002	VLQ0911K100	COIL 10UH	G1C100K00019
L3006	VLQ0911K100	COIL 10UH	G1C100K00019
L3007	VLQ0911K100	COIL 10UH	G1C100K00019
L3009	VLQ0911K100	COIL 10UH	G1C100K00019
L3011	VLQ0911K100	COIL 10UH	G1C100K00019
L3012	VLQ0911K100	COIL 10UH	G1C100K00019
L3013	VLQ0911K100	COIL 10UH	G1C100K00019
L3014	VLQ0911K100	COIL 10UH	G1C100K00019
L3015	VLQ0911K100	COIL 10UH	G1C100K00019
L3017	VLQ0464K100	COIL 10UH	G1C100K00025
L3201	VLQ0911K100	COIL 10UH	G1C100K00019
L3501	VLQ0807K100	COIL 10UH	G1C100K00024
L3505	VLQ0426J330	COIL 33UH	G1C330J00005
L3506	VLQ0426J330	COIL 33UH	G1C330J00005
L3507	VLQ0426J330	COIL 33UH	G1C330J00005
L3508	VLQ0426J330	COIL 33UH	G1C330J00005
L3509	VLQ0426J330	COIL 33UH	G1C330J00005
L3510	VLQ0426J330	COIL 33UH	G1C330J00005
L4502	VLQ0911K100	COIL 10UH	G1C100K00019

Ref. No.	Part No.	Part Name & Description	Remarks
L5001	VLQ0855K101	COIL 100UH	G1C101K00019
L5002	VLQ0911K100	COIL 10UH	G1C100K00019
L5003	VLQ0911K100	COIL 10UH	G1C100K00019
LB1001	VLP0332A420	CHIP BEAD	J0JHC0000017
LB2002	VLP0335	COIL	J0JBC0000013
LB3001	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3002	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3003	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3004	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3006	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3101	VLP0329A121	CHIP BEAD	
LB3102	VLP0329A121	CHIP BEAD	
LB3103	VLP0329A121	CHIP BEAD	
LB3201	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3205	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3207	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB3402	VLP0140	CHIP BEAD	
LB3403	J0JJC0000016	FILTER	
LB3502	VLP0335	COIL	J0JBC0000013
LB3503	VLP0335	COIL	J0JBC0000013
LB6501	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
PP3001	VJP4119C060		K1KB60A00067
PS3004	VJS4263A120	CONNECTOR (FEMALE) 120P	
Q601	B1ADGD000005	TRANSISTOR	
Q602	B1ADGD000005	TRANSISTOR	
Q603	XP1501	TRANSISTOR-TRANSISTOR	XP01501
Q605	B1ADGD000005	TRANSISTOR	
Q608	B1ADGD000005	TRANSISTOR	
Q611	B1ABBE000002	TRANSISTOR	
Q1011	B1BDCB000009	TRANSISTOR	
Q1051	2SB798A	TRANSISTOR	B1BDBD000002
Q1061	B1BDCB000009	TRANSISTOR	
Q1062	B1BDCB000009	TRANSISTOR	
Q1301	2SA1036	TRANSISTOR	
Q1302	XP1501	TRANSISTOR-TRANSISTOR	XP01501
Q1311	2SB798A	TRANSISTOR	B1BDBD000002
Q1321	2SB798A	TRANSISTOR	B1BDBD000002
Q1341	B1ADGD000005	TRANSISTOR	
Q1342	XP1501	TRANSISTOR-TRANSISTOR	XP01501
Q1351	2SD2216	TRANSISTOR	2SD22160R
Q1451	B1ABBE000002	TRANSISTOR	
Q1452	XP1401	TRANSISTOR-TRANSISTOR	XP01401
Q1453	2SA1832FY	TRANSISTOR	
Q1481	B1ABBE000002	TRANSISTOR	
Q1482	XP1401	TRANSISTOR-TRANSISTOR	XP01401
Q1491	2SD2216	TRANSISTOR	2SD22160R
Q2007	B1ADGD000005	TRANSISTOR	
Q2011	XP4601	TRANSISTOR-TRANSISTOR	XP04601
Q3101	2SD1979	TRANSISTOR	
Q3102	2SD1979	TRANSISTOR	
Q3103	2SD1979	TRANSISTOR	
Q3501	B1ADGD000005	TRANSISTOR	
Q3503	2SB1218A-R	TRANSISTOR	2SB1218AR
Q3504	2SB1218A-R	TRANSISTOR	2SB1218AR
Q3505	2SD1819A	TRANSISTOR	2SD1819AW
QR601	XP4314	TRANSISTOR	XP04314
QR602	XP4314	TRANSISTOR	XP04314
QR604	RN1103F	TRANSISTOR-RESISTOR	B1GBCFLL0022
QR1001	RN2106F	TRANSISTOR-RESISTOR	
QR1101	RN1107F	TRANSISTOR-RESISTOR	
QR1161	RN2111F	TRANSISTOR-RESISTOR	B1GDCFJA0007
QR1352	B1GDBEHH0001	TRANSISTOR-RESISTOR	
QR1451	B1GBBEMM0001	TRANSISTOR-RESISTOR	
QR1492	RN2111F	TRANSISTOR-RESISTOR	B1GDCFJA0007
QR2002	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
QR2004	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
QR2005	RN2911R	TRANSISTOR-RESISTOR	B1GHCFJA0003
QR2006	RN1109F	TRANSISTOR-RESISTOR	
QR2010	RN2911R	TRANSISTOR-RESISTOR	B1GHCFJA0003
QR3101	RN2103F	TRANSISTOR-RESISTOR	
QR3102	B1GBBEMM0001	TRANSISTOR-RESISTOR	
QR3401	RN2111F	TRANSISTOR-RESISTOR	B1GDCFJA0007
QR3402	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
QR3403	RN2103F	TRANSISTOR-RESISTOR	
QR3404	B1GBBEMM0001	TRANSISTOR-RESISTOR	
QR3502	B1GBBEMM0001	TRANSISTOR-RESISTOR	
R601	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R602	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R603	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R604	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R605	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R606	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R608	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R609	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R610	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R611	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R612	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R613	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R614	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R615	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R616	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R617	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R618	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R619	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R621	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R622	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R623	ERJ2GEJ273X	M.RESISTOR CH 1/16W 27K	ERJ2RMJ273X
R624	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R625	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R626	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	

Ref. No.	Part No.	Part Name & Description	Remarks
R627	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R628	ERJ2RHD473	M.RESISTOR CH 1/16W 47K	
R629	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R630	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R631	ERJ2RHD563	M.RESISTOR CH 1/16W 56K	
R632	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	
R633	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R634	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R635	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R636	ERJ6GEYJ4R7V	M.RESISTOR CH 1/10W 4.7	
R638	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R639	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R640	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R642	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R643	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R644	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R647	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R648	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R649	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R650	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R651	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R657	ERJ2GEJ274X	M.RESISTOR CH 1/16W 270K	
R1001	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	
R1002	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R1005	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	
R1011	ERJ2RHD682	M.RESISTOR CH 1/16W 6.8K	
R1012	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1013	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1014	ERJ2RHD391	M.RESISTOR CH 1/16W 390	
R1015	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1021	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1022	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1023	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1024	ERJ2RHD361	M.RESISTOR CH 1/16W 360	
R1025	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1031	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	
R1032	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1033	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1034	ERJ2RHD151	M.RESISTOR CH 1/16W 150	
R1035	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	

Ref. No.	Part No.	Part Name & Description	Remarks
R1036	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R1041	ERJ2RHD821	M.RESISTOR CH 1/16W 820	
R1042	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1043	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1044	ERJ2RHD181	M.RESISTOR CH 1/16W 180	
R1045	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1051	ERJ6RBB273	M.RESISTOR CH 1/10W 27K	
R1052	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1053	ERJ2RKD820	M.RESISTOR CH 1/16W 82	
R1054	ERJ2RHD271	M.RESISTOR CH 1/16W 270	
R1055	ERJ6RBB272	M.RESISTOR CH 1/10W 2.7K	
R1056	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R1101	ERJ2RHD243	M.RESISTOR CH 1/16W 24K	
R1103	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R1104	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	ERJ2GEJ123X
R1111	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R1112	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R1113	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R1114	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R1116	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R1121	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R1131	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R1141	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R1151	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R1152	ERJ2GEJ392X	M.RESISTOR CH 1/16W 3.9K	ERJ2RMJ392X
R1153	ERJ2RHD273X	M.RESISTOR CH 1/16W 27K	
R1154	ERJ2RHD333	M.RESISTOR CH 1/16W 33K	
R1155	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R1156	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R1161	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R1221	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1301	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	
R1302	ERJ2RHD683	M.RESISTOR CH 1/16W 68K	
R1303	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	
R1304	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	
R1305	ERJ2RHD332	M.RESISTOR CH 1/16W 3.3K	
R1306	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R1311	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1312	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1322	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R1323	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1333	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1341	ERJ2RHD121	M.RESISTOR CH 1/16W 120	
R1343	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1344	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R1345	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R1349	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R1401	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R1402	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R1425	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R1451	ERJ2RHD113	M.RESISTOR CH 1/16W 11K	
R1452	ERJ2RHD561	M.RESISTOR CH 1/16W 560	
R1453	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1454	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R1455	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R1456	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R1457	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R1458	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R1481	ERJ2RHD223X	M.RESISTOR CH 1/16W 22K	
R1482	ERJ2RHD242	M.RESISTOR CH 1/16W 2.4K	
R1483	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R1484	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R1491	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	
R1492	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	
R1493	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R1494	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2001	ERJ2GEJ394X	M.RESISTOR CH 1/16W 390K	ERJ2RMJ394X
R2002	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2003	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2004	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2005	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2006	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2007	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2008	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2009	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2010	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	ERJ2GEJ272X
R2011	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2012	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2013	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2014	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2015	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R2016	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2017	ERJ2GEJ822X	M.RESISTOR CH 1/16W 8.2K	ERJ2RMJ822X
R2019	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2020	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2021	ERJ2GEJ822X	M.RESISTOR CH 1/16W 8.2K	ERJ2RMJ822X
R2022	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2023	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2024	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2025	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2026	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2027	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R2028	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2029	ERJ2GEJ394X	M.RESISTOR CH 1/16W 390K	ERJ2RMJ394X
R2030	ERJ2GEJ274X	M.RESISTOR CH 1/16W 270K	
R2032	ERJ2GEJ391X	M.RESISTOR CH 1/16W 390	ERJ2RMJ391X
R2034	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2036	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2037	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2038	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R2039	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R2040	ERJ8GEYG330	M.RESISTOR CH 1/8W 33	
R2041	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2042	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2043	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R2044	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2048	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2049	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2050	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R2051	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2052	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2053	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R2054	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R2055	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2057	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2058	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R2059	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2060	ERJ2GEJ394X	M.RESISTOR CH 1/16W 390K	ERJ2RMJ394X
R2062	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2063	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R2064	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2065	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2066	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2069	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2071	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2072	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2073	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R2074	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R2075	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2076	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R2077	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R2078	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2081	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R2082	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R2083	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R2084	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2085	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2086	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2087	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2088	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2089	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2090	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2091	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R2092	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R2093	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2094	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R2097	ERJ2GEJ392X	M.RESISTOR CH 1/16W 3.9K	ERJ2RMJ392X
R2098	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2101	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2102	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2103	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2104	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2105	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2106	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2109	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2110	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2111	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2112	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R2113	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R2114	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	

Ref. No.	Part No.	Part Name & Description	Remarks
R2115	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2116	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R2117	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R2118	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R2119	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R2124	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2125	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R2126	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R2127	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R2129	ERJ2RHD273X	M.RESISTOR CH 1/16W 27K	
R2132	ERJ2RHD103X	M.RESISTOR CH 1/16W 10K	
R2133	ERJ2RHD273X	M.RESISTOR CH 1/16W 27K	
R2136	ERJ2RHD273X	M.RESISTOR CH 1/16W 27K	
R2137	ERJ2RHD273X	M.RESISTOR CH 1/16W 27K	
R2138	ERJ2RHD103X	M.RESISTOR CH 1/16W 10K	
R2139	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R2142	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2143	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2146	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R2161	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2162	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R2164	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2165	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2167	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2168	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2169	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2170	ERJ2GEJ822X	M.RESISTOR CH 1/16W 8.2K	ERJ2RMJ822X
R2171	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2172	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2173	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2174	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2175	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2176	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2178	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2182	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2185	ERJ2RHD683	M.RESISTOR CH 1/16W 68K	
R2186	ERJ2GEJ822X	M.RESISTOR CH 1/16W 8.2K	ERJ2RMJ822X
R2187	ERJ2RHD223X	M.RESISTOR CH 1/16W 22K	
R2188	ERJ2GEJ681X	M.RESISTOR CH 1/16W 680	ERJ2RMJ681X
R2189	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	

Ref. No.	Part No.	Part Name & Description	Remarks
R2194	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2195	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R2201	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2202	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2203	ERJ2GEJ823X	M.RESISTOR CH 1/16W 82K	ERJ2RMJ823X
R2204	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R2205	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2206	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2207	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2208	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2209	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R2210	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R2211	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	ERJ8RQJR27V
R2212	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	ERJ2GEJ122X
R2213	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	ERJ8RQJR27V
R2214	ERJ2GEJ273X	M.RESISTOR CH 1/16W 27K	ERJ2RMJ273X
R2216	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R2219	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R2222	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2224	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2225	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R2233	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3001	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R3002	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3004	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3005	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R3006	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3007	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3008	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3011	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3012	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3013	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3015	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3016	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3017	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3019	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R3020	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R3021	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	ERJ2GEJ183X
R3022	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3023	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3024	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3030	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3031	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3032	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3033	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R3034	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3035	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R3036	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3037	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3041	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3101	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3102	ERJ2GEJ821X	M.RESISTOR CH 1/16W 820	ERJ2RMJ821X
R3103	ERJ2GEJ391X	M.RESISTOR CH 1/16W 390	ERJ2RMJ391X
R3104	ERJ2GEJ821X	M.RESISTOR CH 1/16W 820	ERJ2RMJ821X
R3105	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3106	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3107	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R3108	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3109	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R3110	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R3111	ERJ2GEJ391X	M.RESISTOR CH 1/16W 390	ERJ2RMJ391X
R3112	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3113	ERJ2GEJ394X	M.RESISTOR CH 1/16W 390K	ERJ2RMJ394X
R3114	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3115	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3116	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R3117	ERJ2GEJ681X	M.RESISTOR CH 1/16W 680	ERJ2RMJ681X
R3118	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R3119	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R3120	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3122	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3124	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3125	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3126	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3127	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3128	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3129	ERJ2GEJ680X	M.RESISTOR CH 1/16W 68	ERJ2RMJ680X
R3130	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3131	ERJ2GEJ750	M.RESISTOR CH 1/16W 75	
R3132	ERJ2GEJ680X	M.RESISTOR CH 1/16W 68	ERJ2RMJ680X

Ref. No.	Part No.	Part Name & Description	Remarks
R3133	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3136	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R3137	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3138	ERJ2GEJ392X	M.RESISTOR CH 1/16W 3.9K	ERJ2RMJ392X
R3149	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3151	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3201	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3202	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3203	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	ERJ2GEJ470X
R3204	ERJ2GEJ181	M.RESISTOR CH 1/16W 180	ERJ2GEJ181X
R3205	ERJ2RHD272	M.RESISTOR CH 1/16W 2.7K	
R3209	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3210	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3211	ERJ2GEJ681X	M.RESISTOR CH 1/16W 680	ERJ2RMJ681X
R3212	ERJ2GEJ681X	M.RESISTOR CH 1/16W 680	ERJ2RMJ681X
R3213	ERJ2GEJ273X	M.RESISTOR CH 1/16W 27K	ERJ2RMJ273X
R3215	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3216	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R3217	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3218	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3229	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R3251	ERJ2RKD560X	M.RESISTOR CH 1/16W 56	
R3252	ERJ2RKD560X	M.RESISTOR CH 1/16W 56	
R3253	ERJ2RKD560X	M.RESISTOR CH 1/16W 56	
R3254	ERJ2RKD560X	M.RESISTOR CH 1/16W 56	
R3255	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3256	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3257	ERJ2RHD622	M.RESISTOR CH 1/16W 6.2K	
R3258	ERJ2RHD181	M.RESISTOR CH 1/16W 180	
R3259	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3401	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3402	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	ERJ2GEJ221X
R3403	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3404	ERJ2RKD240	M.RESISTOR CH 1/16W 24	
R3405	ERJ2GEJ220X	M.RESISTOR CH 1/16W 22	ERJ2RMJ220X
R3406	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3407	ERJ2RKD240	M.RESISTOR CH 1/16W 24	
R3408	ERJ2GEJ220X	M.RESISTOR CH 1/16W 22	ERJ2RMJ220X
R3409	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3410	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X

Ref. No.	Part No.	Part Name & Description	Remarks
R3411	ERJ2GEJ220X	M.RESISTOR CH 1/16W 22	ERJ2RMJ220X
R3412	ERJ2GEJ220X	M.RESISTOR CH 1/16W 22	ERJ2RMJ220X
R3413	ERJ2GEJ560	M.RESISTOR CH 1/16W 56	
R3414	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R3415	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3417	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3418	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3419	ERJ2GEJ683X	M.RESISTOR CH 1/16W 68K	ERJ2RMJ683X
R3420	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3421	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3423	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3424	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3426	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R3427	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3428	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3430	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3431	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3433	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3434	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3435	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3436	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3437	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R3438	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3439	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3440	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3441	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R3443	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	
R3444	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3445	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3446	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3447	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R3448	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3449	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3450	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3451	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3452	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3453	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3454	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3455	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3456	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	

Ref. No.	Part No.	Part Name & Description	Remarks
R3458	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3460	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3461	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3462	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3463	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3494	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3495	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3496	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3497	ERJ2GEJ821X	M.RESISTOR CH 1/16W 820	ERJ2RMJ821X
R3498	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3501	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3503	ERJ3RBD332V	M.RESISTOR CH 1/16W 3.3K	
R3504	ERJ3RBD181V	M.RESISTOR CH 1/16W 180	
R3505	ERJ3RBD102V	M.RESISTOR CH 1/16W 1K	
R3506	ERJ3RBD102V	M.RESISTOR CH 1/16W 1K	
R3507	ERJ3RBD392V	M.RESISTOR CH 1/16W 3.9K	
R3508	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3509	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R3515	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R3551	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3552	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R3553	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3554	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3555	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3556	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R3557	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R3558	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R3560	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R3561	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3562	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3563	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R3564	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R3565	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3568	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	ERJ2GEJ183X
R3580	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R3591	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3592	ERJ2GEJ821X	M.RESISTOR CH 1/16W 820	ERJ2RMJ821X
R3593	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	ERJ2GEJ152X
R3594	ERJ2GEJ821X	M.RESISTOR CH 1/16W 820	ERJ2RMJ821X
R4501	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X

Ref. No.	Part No.	Part Name & Description	Remarks
R5001	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R5004	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R5006	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R5007	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R5008	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R5009	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R5010	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R5011	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R5012	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R5015	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R6501	ERJ2GEJ331X	M.RESISTOR CH 1/16W 330	ERJ2RMJ331X
R6502	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R6503	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R6504	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R6506	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R6901	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R6902	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
T1051	G5DYA0000039	SWITCHING TRANSFORMER	
W6501	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
W6505	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
W6506	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
W6508	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
X2001	H0J270500024	CRYSTAL OSCILLATOR	
X2002	VSX0601	CRYSTAL OSCILLATOR	H0J327200051
X3001	H0J245500021	CRYSTAL OSCILLATOR	
X3402	H0J245500021	CRYSTAL OSCILLATOR	
X3404	H1A4805B0007	CRYSTAL OSCILLATOR	
■	VEP23536A	CAMERA C.B.A.	(RTL)
C201	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C202	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C203	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C204	ECST1AY106ZR	T.CAPACITOR CH 10V 10U	ECST1AY106R
C205	ECST1AY106ZR	T.CAPACITOR CH 10V 10U	ECST1AY106R
C206	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C207	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C208	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C209	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C210	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R

Ref. No.	Part No.	Part Name & Description	Remarks
C212	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C213	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C214	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C215	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C216	ECST0JX107ZR	T.CAPACITOR CH 6.3V 100U	F3H0J1070005
C217	ECUV0J475KBN	C.CAPACITOR CH 6.3V 4.7U	F1J0J4750004
C218	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C219	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C220	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C221	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C222	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C223	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C225	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C226	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C227	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C228	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C229	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C230	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C231	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C301	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C302	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C303	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C304	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C305	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C306	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C307	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C308	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C309	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C310	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C311	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C312	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C313	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C314	ECUX1H220JCQ	C.CAPACITOR CH 50V 22P	
C315	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C316	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C317	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C318	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C319	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C320	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C321	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C322	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C323	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C324	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C325	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C326	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C327	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C328	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C329	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C330	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C331	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C332	ECST0JY106ZR	T.CAPACITOR CH 6.3V 10U	ECST0JY106R
C333	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C334	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C335	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C336	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C701	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C702	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C703	ECUX1C822KBQ	C.CAPACITOR CH 16V 8200P	
C704	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C705	ECUX1H390JCQ	C.CAPACITOR CH 50V 39P	
C706	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C707	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C708	ECUX1E272KBQ	C.CAPACITOR CH 25V 2700P	
C709	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C710	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C711	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C712	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C713	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C714	ECST0GY476Z	T.CAPACITOR CH 4V 47U	F3F0G476A009
C715	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C716	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C717	ECUV1C224KBN	C.CAPACITOR CH 16V 0.22U	ECJ2VB1C224K
C718	ECUX1H151JCQ	C.CAPACITOR CH 50V 150P	
C719	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C720	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C721	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C722	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C723	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C724	ECST1DY475Z	T.CAPACITOR CH 20V 4.7U	
C725	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	

Ref. No.	Part No.	Part Name & Description	Remarks
C727	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C728	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C729	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C730	ECUX1E392KBQ	C.CAPACITOR CH 25V 3900P	
C731	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C734	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C735	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C737	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C738	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C743	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C745	ECST0GY476Z	T.CAPACITOR CH 4V 47U	F3F0G476A009
C747	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C748	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C750	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C751	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C752	ECUX1E392KBQ	C.CAPACITOR CH 25V 3900P	
C753	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C754	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C755	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C757	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C758	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C759	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
D201	MA111	DIODE	MA2J111
D301	RB520S30	DIODE	B0JCDD000002
D302	RB520S30	DIODE	B0JCDD000002
D303	RB520S30	DIODE	B0JCDD000002
D391	MA2SD2400L	DIODE	
D392	MA2SD2400L	DIODE	
D393	MA2SD2400L	DIODE	
D394	MA2SD2400L	DIODE	
D395	MA2SD2400L	DIODE	
FP301	VJS3971D021	CONNECTOR (FEMALE) 21P	K1MN21B00016
FP701	VJS3971B039	CONNECTOR (FEMALE) 39P	
IC201	RN5RG34AA	IC	C0DBZGA00010
IC202	C1AB00001432	IC	
IC203	C1AB00001446	IC	
IC204	RN5RG29AA	IC	C0DBZFA00008
IC301	MN7GD04B5H	IC	
IC302	C2DBKJ000070	IC	
IC303	AK6416AM	IC	C3EBGG000003
IC701	C0ABCA000053	IC	
IC702	C1AB00001159	IC	
IC703	C0CBAEC00006	IC	
IC704	C1AB00001262	IC	
L201	VLQ0807K100	COIL 10UH	G1C100K00024
L202	VLQ0807K100	COIL 10UH	G1C100K00024
L203	VLQ0780K100	COIL 10UH	G1C100KA0004
L205	VLQ0807K100	COIL 10UH	G1C100K00024
L301	VLQ0911K100	COIL 10UH	G1C100K00019
L302	VLQ0911K100	COIL 10UH	G1C100K00019
L303	VLQ0779M4R7	COIL 4.7UH	G1C4R7MA0002
L304	VLQ0807K100	COIL 10UH	G1C100K00024
L305	VLQ0807K100	COIL 10UH	G1C100K00024
L306	G1C4R7MA0031	CHIP INDUCTOR	G1C4R7MA0030
L307	VLQ0807K100	COIL 10UH	G1C100K00024
L308	VLQ0911K100	COIL 10UH	G1C100K00019
L310	VLQ0911K100	COIL 10UH	G1C100K00019
L701	VLQ0807K100	COIL 10UH	G1C100K00024
L702	VLQ0807K220	COIL 22UH	G1C220K00016
L703	VLQ0807K100	COIL 10UH	G1C100K00024
LB201	VLF1143A102	COIL 1000UH	J0JBC0000026
LB202	VLF1143A102	COIL 1000UH	J0JBC0000026
LB208	VLF1143A102	COIL 1000UH	J0JBC0000026
LB209	VLF1143A102	COIL 1000UH	J0JBC0000026
LB301	VLF1143A102	COIL 1000UH	J0JBC0000026
LB302	VLF1143A102	COIL 1000UH	J0JBC0000026
LB303	VLF1143A102	COIL 1000UH	J0JBC0000026
LB304	VLF1143A102	COIL 1000UH	J0JBC0000026
LB305	J0JHC0000032	FILTER	
LB306	VLF1143A102	COIL 1000UH	J0JBC0000026
LB307	VLF1143A102	COIL 1000UH	J0JBC0000026
PP301	VJP4263A120	CONNECTOR (MALE) 120P	
PS201	VJS4009A020	CONNECTOR (FEMALE) 20P	K1KB20A00084
Q201	2SA1036	TRANSISTOR	
Q203	2SA1036	TRANSISTOR	
Q701	2SB970X-R	TRANSISTOR	2SB0970XR
Q702	B1ADGD000005	TRANSISTOR	
Q703	XN4601	TWIN TRANSISTOR	XN04601
QR201	B1GBBEHH0001	TRANSISTOR-RESISTOR	
QR303	B1GBBEHH0001	TRANSISTOR-RESISTOR	
QR304	B1GBBEHH0001	TRANSISTOR-RESISTOR	
QR701	B1GBBEHH0001	TRANSISTOR-RESISTOR	
QR702	UN9214J	TRANSISTOR-RESISTOR	
QR704	UN9214J	TRANSISTOR-RESISTOR	
R203	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R204	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R206	ERJ3GEYJ470V	M.RESISTOR CH 1/16W 47	
R207	ERJ3GEYJ3R9V	M.RESISTOR CH 1/16W 3.9	
R208	ERJ3GEYJ3R9V	M.RESISTOR CH 1/16W 3.9	
R209	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R212	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R213	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R218	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R219	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	ERJ2GEJ470X
R220	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	ERJ2GEJ470X
R221	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R222	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R223	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R224	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R225	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R226	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R227	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R228	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R229	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R230	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R231	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R232	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R236	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R240	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R241	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R242	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R247	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R301	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R304	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R305	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R306	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R307	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R308	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R309	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R310	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R311	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R312	ERJ2GEJ682X	M.RESISTOR CH 1/16W 6.8K	ERJ2RMJ682X
R313	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R314	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R315	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R316	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R317	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R318	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R319	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R320	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R321	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R322	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R323	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R328	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R329	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R330	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R331	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R332	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X

Ref. No.	Part No.	Part Name & Description	Remarks
R333	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R334	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R335	ERJ2GEJ100	M.RESISTOR CH 1/16W 10	ERJ2GEJ100X
R337	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R338	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R339	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R340	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R341	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R342	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R343	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R344	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R345	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R346	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R347	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R348	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R349	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R350	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	ERJ2GEJ105X
R351	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R352	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R369	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R372	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R377	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R419	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R420	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R701	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	ERJ2GEJ272X
R702	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R703	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	ERJ2GEJ272X
R704	ERJ2GEJ272	M.RESISTOR CH 1/16W 2.7K	ERJ2GEJ272X
R705	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R706	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R707	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R708	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R709	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R710	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R712	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R714	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R715	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R716	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R717	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R718	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X

Ref. No.	Part No.	Part Name & Description	Remarks
R719	ERJ2GEJ274X	M.RESISTOR CH 1/16W 270K	
R720	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R721	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R722	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R723	ERJ6RBB472	M.RESISTOR CH 1/10W 4.7K	
R724	ERJ6RBB472	M.RESISTOR CH 1/10W 4.7K	
R725	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R726	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R727	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R728	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R729	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R730	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R731	ERJ2GEJ124	M.RESISTOR CH 1/16W 120K	ERJ2GEJ124X
R732	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R733	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R734	ERJ3GEYJ2R2V	M.RESISTOR CH 1/16W 2.2	D0GB2R2JA002
R735	ERJ3GEYJ2R2V	M.RESISTOR CH 1/16W 2.2	D0GB2R2JA002
R736	ERJ6GEYJ3R9V	M.RESISTOR CH 1/10W 3.9	
R737	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R738	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R739	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R740	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R741	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R742	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R743	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R744	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R745	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R746	ERJ2GEJ155	M.RESISTOR CH 1/16W 1.5M	ERJ2GEJ155X
R748	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R749	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R750	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R751	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R752	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R753	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R754	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R755	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R756	ERJ2GEJ392X	M.RESISTOR CH 1/16W 3.9K	ERJ2RMJ392X
R757	ERJ2GEJ392X	M.RESISTOR CH 1/16W 3.9K	ERJ2RMJ392X
R758	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R759	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R760	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R761	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R762	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R763	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R764	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R765	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R768	ERJ3GEYJ3R3V	M.RESISTOR CH 1/16W 3.3	
R770	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R771	ERJ3GEYJ3R3V	M.RESISTOR CH 1/16W 3.3	
R776	ERJ2GEJ333X	M.RESISTOR CH 1/16W 33K	ERJ2RMJ333X
R777	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R778	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R779	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R780	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
R781	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R786	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R787	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R788	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R789	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R790	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R793	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R794	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R797	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R799	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	ERJ2GEJ224X
W204	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
X201	H1A7205B0001	CRYSTAL OSCILLATOR	
X301	VSX0865	CRYSTAL OSCILLATOR	H0J135500006
■	VEP22315A	CCD FLEX.CARD C.B.A.	(RTL)
C294	ECST1VX225Z	T.CAPACITOR CH 35V 2.2U	
C295	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C296	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C297	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
D291	MA143	DIODE	
PP291	VJP4009C020	CONNECTOR	K1KA20A00170
Q291	2SC4627	TRANSISTOR	
Q292	2SC4627	TRANSISTOR	
R292	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	

Ref. No.	Part No.	Part Name & Description	Remarks
R293	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	D0GB562JA002
R294	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	D0GB562JA002
R296	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	
■	VEP06E28A	GRIP C.B.A.	(RTL)
C6101	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	
D6101	CL190UR	DIODE	B3AAB0000067
D6102	SML-310MT	LED	B3ABB0000091
D6103	SML-310DT	LED	B3ADB0000026
D6104	CL190UR	DIODE	B3AAB0000067
D6105	B0JDAD000001	DIODE	
D6106	B0JDAD000001	DIODE	
FP6101	VJS4036B008	CONNECTOR (FEMALE) 8P	
FP6102	VJS4298B008	CONNECTOR (FEMALE) 8P	K1MN08B00048
FP6103	VJS3971D021	CONNECTOR (FEMALE) 21P	K1MN21B00016
R6101	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	
R6102	ERJ3GEYJ121V	M.RESISTOR CH 1/16W 120	
R6103	ERJ3GEYJ181V	M.RESISTOR CH 1/16W 180	
R6104	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
S6103	VSS0535	SLIDE SWITCH	K0D113B00036
S6104	VSS0392	SLIDE SWITCH	K0D112B00074
S6201	VSP0584	SWITCH	K0L1BA000019
S6202	VSP1102	SWITCH	K0H1BA000260
■	VEP06E30A	GRIP FLEX. CARD U.	(RTL)
S6211	VSP0584	SWITCH	K0L1BA000019
S6212	VSP0584	SWITCH	K0L1BA000019
■	VEP04781C	GYRO C.B.A.	(RTL)
C451	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C453	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C455	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C456	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C458	ECUM0J106VBM	C.CAPACITOR CH 6.3V 10U	
C459	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C460	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C461	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C462	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C464	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C465	ECUM0J106VBM	C.CAPACITOR CH 6.3V 10U	
C467	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C468	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C470	ECUX0J105KBV	C.CAPACITOR CH 6.3V 1U	
C471	ECUM0J106VBM	C.CAPACITOR CH 6.3V 10U	

Ref. No.	Part No.	Part Name & Description	Remarks
C472	ECUM0J106VBM	C.CAPACITOR CH 6.3V 10U	
C480	ECST0GY226Z	T.CAPACITOR CH 4V 22U	
C481	ECST0GY476Z	T.CAPACITOR CH 4V 47U	F3F0G476A009
C482	ECST0GY226Z	T.CAPACITOR CH 4V 22U	
C2508	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2509	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C2510	F1J0J475A006	CERAMIC CAPACITOR	
C2511	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C2513	ECUX1A473KBQ	C.CAPACITOR CH 10V 0.047U	
C4001	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
C4002	ECUX1E472KBQ	C.CAPACITOR CH 25V 4700P	
FL4002	J0MAB0000113	FILTER	
FP451	VJS3971D027	CONNECTOR (FEMALE) 27P	K1MN27B00008
IC451	TC7W66FU	IC	
IC452	NJM3403AV	IC	C0ABCA000041
IC453	NJM2143R	IC	C0ABAA000045
IC480	L2ES00000006	IC	
IC481	L2ES00000005	IC	
IC2502	MM1385ENRE	IC	C0CBABC00077
JK2501	VJJ0552	JACK (4-PIN)	K2HC104E0002
JK2502	K2HZ108B0004	8-PIN JACK	
JK4001	VJJ0668	AV JACK (4-PIN)	K2HC106B0005
L451	VLQ0911K100	COIL 10UH	G1C100K00019
L452	VLQ0911K100	COIL 10UH	G1C100K00019
L480	VLQ0911K100	COIL 10UH	G1C100K00019
L2501	VLQ0855M4R7	COIL 4.7UH	G1C4R7M00016
L2502	VLQ0911K100	COIL 10UH	G1C100K00019
LB2501	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB2502	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB2503	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB2504	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB2508	VLP0357A601	CHIP BEAD	
LB4001	VLP0329A121	CHIP BEAD	
LB4003	VLP0330A102	CHIP BEAD	J0JAC0000011
LB4005	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB4006	VLF1315A102	CHIP BEAD	J0JHC0000015 ⚠
LB4007	VLP0330A102	CHIP BEAD	J0JAC0000011
R452	ERJ2GEJ274X	M.RESISTOR CH 1/16W 270K	
R453	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	
R454	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R455	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R456	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R457	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R458	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R459	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R460	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R461	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R462	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R463	ERJ2GE0R00	M.RESISTOR CH 1/16W 0	
R464	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R465	ERJ2GEJ474X	M.RESISTOR CH 1/16W 470K	ERJ2RMJ474X
R466	ERJ2RHD472	M.RESISTOR CH 1/16W 4.7K	
R467	ERJ2GEJ274X	M.RESISTOR CH 1/16W 270K	
R469	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R470	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R2501	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2502	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R2511	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	
R2515	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R2516	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R2517	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4001	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
VZ2501	D4ED1120A002	TRANSIENT/SURGE ABSORBER	
VZ2502	D4ED1220A006	TRANSIENT/SURGE ABSORBER	
VZ4001	VRT0158	TRANSIENT/SURGE ABSORBER	D4ED12710002
■	VEP07A42A	FLASH C.B.A.	(RTL)
C3901	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C7001	ECUX1C223KBQ	C.CAPACITOR CH 16V 0.022U	
C7002	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	
C7003	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C7004	F2AZZ7500002	ELECTROLYTIC CAPACITOR	
C7006	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C7007	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C7008	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C7009	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C7010	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C7011	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C7012	ECUX1A334KBV	C.CAPACITOR CH 10V 0.33U	
D3901	MA133	DIODE	MA3S133
D7003	B0ECKT000001	DIODE	
D7004	MAZU3000LL	DIODE	
FL3961	VLF1518A206	CHIP BEAD	
FP7001	VJS3971D027	CONNECTOR (FEMALE) 27P	K1MN27B00008
FP7002	VJS3971B033	CONNECTOR (FEMALE) 33P	
IC7001	TC7S08FU	IC	C0JBAA000203
IC7002	TA75S393F	IC	C0BBAB000005
JK3001	VJJ0670	S-JACK	K2HZ104A0002
JK3801	VJJ0673	DV TERMINAL	K1FA104A0011
L7001	VLQ0900M560	COIL 56UH	
Q7001	B1BDDG000001	TRANSISTOR	B1BDDG000005
Q7002	2SB1462-R	TRANSISTOR	2SB14620R
Q7003	B1ABBE000002	TRANSISTOR	
Q7004	B1JBLP000003	TRANSISTOR-RESISTOR	B1JBLP000002
QR7001	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
QR7002	B1GBBEMM0001	TRANSISTOR-RESISTOR	
QR7003	B1GDBEHH0001	TRANSISTOR-RESISTOR	
QR7005	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
QR7006	B1GBCFGJ0007	TRANSISTOR-RESISTOR	
R3901	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3902	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R3903	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3904	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3905	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R3906	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R7001	ERJ6GEYJ330V	M.RESISTOR CH 1/10W 33	
R7002	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R7003	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	
R7004	ERJ2GEJ822X	M.RESISTOR CH 1/16W 8.2K	ERJ2RMJ822X
R7005	ERJ2GEJ334X	M.RESISTOR CH 1/16W 330K	ERJ2RMJ334X
R7006	ERJ2GEJ564X	M.RESISTOR CH 1/16W 560K	ERJ2RMJ564X
R7008	ERJ2GEJ330	M.RESISTOR CH 1/16W 33	
R7009	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	
R7010	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R7011	ERJ2GEJ563X	M.RESISTOR CH 1/16W 56K	
R7012	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R7013	ERJ2GEJ561X	M.RESISTOR CH 1/16W 560	ERJ2RMJ561X
R7014	ERJ2GEJ561X	M.RESISTOR CH 1/16W 560	ERJ2RMJ561X
R7015	ERJ2GEJ123	M.RESISTOR CH 1/16W 12K	ERJ2GEJ123X
R7016	ERJ2GEJ153	M.RESISTOR CH 1/16W 15K	ERJ2GEJ153X
R7017	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R7018	ERJ2GEJ681X	M.RESISTOR CH 1/16W 680	ERJ2RMJ681X
R7019	ERJ2GEJ220X	M.RESISTOR CH 1/16W 22	ERJ2RMJ220X
R7020	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
T7001	G5DYA0000033	SWITCHING TRANSFORMER	G5DYA0000032
VZ3952	D4ED1120A002	TRANSIENT/SURGE ABSORBER	
VZ6401	D4ED1270A008	TRANSIENT/SURGE ABSORBER	
VZ6402	D4ED1270A008	TRANSIENT/SURGE ABSORBER	

Ref. No.	Part No.	Part Name & Description	Remarks
VZ7001	D4ED1120A002	TRANSIENT/SURGE ABSORBER	
■	VEP28285A	EVF C.B.A.	(RTL)
C802	ECUV1A226MBP	C.CAPACITOR CH 10V 22U	F1L1A2260013
FP801	K1MN19B00029	CONNECTOR	K1MN19B00030
FP802	VJS4353B016	CONNECTOR (FEMALE) 16P	
L881	VLQ0779K100	COIL 10UH	G1C100KA0005
Q881	2SK2055	TRANSISTOR	
T881	ETJ11K73AM	TRANSFORMER	
■	VEP000U2A	SD FLEX. CARD U.	(RTL)
HS3401	K1NA09E00021	CONNECTOR	
■	VEP07A43A	FLASH FLEX. CARD U.	(RTL)
C7005	F1K2E223A004	CERAMIC CAPACITOR	
C7013	F1K2E223A004	CERAMIC CAPACITOR	
Q7005	PNA1101LW	PHOTO TRANSISTOR	
R7007	ERJ6GEYG105	M.RESISTOR CH 1/10W 1M	ERJ6GEYJ105V
S7001	VSP0584	SWITCH	K0L1BA000019
		MISCELLANEOUS	
	EFN-MVP35	BACK LIGHT	
■	VEP26254C	MONITOR C.B.A.	(RTL)
C903	F3F0J1060005	TANTALUM CAPACITOR	
C906	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C907	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C908	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C909	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C910	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C911	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C913	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C916	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C917	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C918	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C921	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C923	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C927	ECUV1E104KBN	C.CAPACITOR CH 25V 0.1U	F1J1E1040007
C929	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	
C931	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	F1J1A1050002
C932	ECUM1E105KBM	C.CAPACITOR CH 25V 1U	
C934	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C935	ECUM1C106VB	C.CAPACITOR CH 16V 10U	

Ref. No.	Part No.	Part Name & Description	Remarks
C937	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C938	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	
C939	ECUX1H331GCV	C.CAPACITOR CH 50V 330P	
C940	ECUX1H560JCQ	C.CAPACITOR CH 50V 56P	
C941	ECUX1H100CCQ	C.CAPACITOR CH 50V 10P	
C942	ECUX1C474KBN	C.CAPACITOR CH 16V 0.47U	ECJ2YB1C474K
C943	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C944	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C945	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	
C946	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C947	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C948	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	ECJ1XB1C104K
C950	ECUV1C105KBN	C.CAPACITOR CH 16V 1U	F1J1C105A091
C952	ECUV1E104KBN	C.CAPACITOR CH 25V 0.1U	F1J1E1040007
C953	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
D903	DAP222	DIODE	
D904	MA159A	DIODE	MA4X159A
D905	MA6S121	DIODE	MA6Z121
D906	MA111	DIODE	MA2J111
D908	02DZ6.2YTPH3	DIODE	B0BC6R100014
FP901	VJS3320B024	CONNECTOR (FEMALE) 24P	K1MN24B00036
FP903	K1MN25B00033	CONNECTOR	K1MN25B00034
IC901	AN2540FHQ-V	IC	
IC902	TC4W53FU	IC	C0JBAR000226
IC908	SN74LV04APW	IC	C0JBAB000247
IC991	DN8797MS	HALL IC	
L901	VLQ0807K100	COIL 10UH	G1C100K00024
L905	VLQ0807K100	COIL 10UH	G1C100K00024
Q901	HN1C01FUYR	TRANSISTOR	B1HBCFA00001
Q902	2SK2159	TRANSISTOR	
Q903	HN1B04FUGRR	TRANSISTOR	B1HFCFE00001
Q905	HN1B04FUGRR	TRANSISTOR	B1HFCFE00001
Q906	2SA1832FY	TRANSISTOR	
QR901	DTC144TH	DIGITAL TRANSISTOR	
QR902	DTC114YH	DIGITAL TRANSISTOR	
QR903	DTC114YH	DIGITAL TRANSISTOR	
QR904	DTC144TH	DIGITAL TRANSISTOR	
QR905	UN9212	TRANSISTOR-RESISTOR	UNR9212
R901	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R903	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R904	ERJ3RBD622	M.RESISTOR CH 1/16W 6.2K	
R907	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R908	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R909	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002

Ref. No.	Part No.	Part Name & Description	Remarks
R910	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R912	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	D0GB334JA002
R914	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
R915	ERJ3RBD333V	M.RESISTOR CH 1/16W 33K	
R917	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	
R918	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	
R919	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R920	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R921	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R922	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R923	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R924	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R925	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R926	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R927	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R928	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R929	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	
R930	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R931	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R932	ERJ3RBD203V	M.RESISTOR CH 1/16W 20K	
R933	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R934	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	ERJ3GEYJ103A
R936	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	ERJ3GEYJ473A
R937	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R938	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R939	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R940	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R941	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R942	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R943	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R945	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R946	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R947	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R948	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R949	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R950	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R951	ERJ3GEYJ560V	M.RESISTOR CH 1/16W 56	
R952	ERJ3GEYJ472A	M.RESISTOR CH 1/16W 4.7K	
R953	ERJ3GEYJ823V	M.RESISTOR CH 1/16W 82K	D0GB823JA002
R954	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R956	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	
R957	ERJ3RBD101	M.RESISTOR CH 1/16W 100	ERJ3RBD101V
R958	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R959	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	ERJ3GEYJ473A
R960	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R961	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	
R962	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	ERJ3GEYJ561A
R963	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
R964	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R965	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R966	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	
R967	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
R968	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R969	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R970	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	D0GB562JA002
R971	ERJ3GEYJ335V	M.RESISTOR CH 1/16W 3.3M	
R972	ERJ3GEYJ224V	M.RESISTOR CH 1/16W 220K	D0GB224JA002
R973	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R974	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R975	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R976	ERJ3RBD681V	M.RESISTOR CH 1/16W 680	
R977	ERJ3RED180	M.RESISTOR CH 1/16W 18	
R978	ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	
R979	ERJ3GEYJ224V	M.RESISTOR CH 1/16W 220K	D0GB224JA002
R980	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	D0GB101JA002
R983	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	D0GB333JA002
R988	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R989	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
T901	ETJ09K59AZ	CHIP TRANSFORMER	
T902	EFTU21R203	TRANSFORMER	
■	VEP04780A	FRONT C.B.A.	(RTL)
C491	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C492	ECUV1C823KBV	C.CAPACITOR CH 16V 0.082U	
C493	ECUX1A224KBV	C.CAPACITOR CH 10V 0.22U	
C4801	F1G1C183A044	CERAMIC CAPACITOR	
C4802	F1G1C183A044	CERAMIC CAPACITOR	
C4803	ECUX1C223KBQ	C.CAPACITOR CH 16V 0.022U	
C4804	ECUX1C223KBQ	C.CAPACITOR CH 16V 0.022U	
C4805	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C4806	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
C4901	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	

Ref. No.	Part No.	Part Name & Description	Remarks
C4902	ECUX1E222KBQ	C.CAPACITOR CH 25V 2200P	
C4903	ECUX0J105VBV	C.CAPACITOR CH 6.3V 1U	
C4905	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C4906	VCS0JP106R	SOLID TANTALUM CAPACITOR	F3E0J106A005
C4908	ECUX0J105VBV	C.CAPACITOR CH 6.3V 1U	
C4910	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
C4913	ECUX0J105VBV	C.CAPACITOR CH 6.3V 1U	
C6401	ECUX1A104KBQ	C.CAPACITOR CH 10V 0.1U	
C6402	ECST0JY226ZR	T.CAPACITOR CH 6.3V 22U	F3F0J226A007
D491	MA132WA	DIODE	MA3S132D
D6801	CL170HR-CD	CHIP LED	B3AAB0000051
D6802	PH310	DIODE	B3GA00000001
FP4901	VJS4322A014	CONNECTOR (FEMALE) 14P	
IR6401	PNA4611M05VT	IR RECEIVER	
JK4901	VJJ0414	MIC JACK	K2HC105E0003
LB4925	VLP0329A241	COIL	
LB4926	VLP0329A241	COIL	
LB4927	J0JHC0000032	FILTER	
Q491	2SD1030	TRANSISTOR	
Q492	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4801	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4802	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4901	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4902	2SB1218A-R	TRANSISTOR	2SB1218AR
Q4903	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4904	2SB1218A-R	TRANSISTOR	2SB1218AR
Q4905	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4906	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4907	2SD1819A-R	TRANSISTOR	2SD1819AR
R491	ERJ2GEJ225X	M.RESISTOR CH 1/16W 2.2M	ERJ2RMJ225X
R492	ERJ2GEJ334X	M.RESISTOR CH 1/16W 330K	ERJ2RMJ334X
R493	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R494	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	ERJ2GEJ182X
R495	ERJ3GEYJ106V	M.RESISTOR CH 1/16W 10M	
R4801	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R4802	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	
R4803	ERJ3GEYJ563V	M.RESISTOR CH 1/16W 56K	
R4804	ERJ3GEYJ563V	M.RESISTOR CH 1/16W 56K	
R4805	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
R4806	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	ERJ3GEYJ104A
R4807	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R4808	ERJ2GEJ332X	M.RESISTOR CH 1/16W 3.3K	ERJ2RMJ332X
R4809	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R4810	ERJ2GEJ393X	M.RESISTOR CH 1/16W 39K	ERJ2RMJ393X
R4811	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4812	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4901	ERJ2GEJ682X	M.RESISTOR CH 1/16W 6.8K	ERJ2RMJ682X
R4902	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	
R4903	ERJ2GEJ682X	M.RESISTOR CH 1/16W 6.8K	ERJ2RMJ682X
R4905	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R4906	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4907	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	
R4908	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4909	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R4910	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R4911	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R4912	ERJ2GEJ471X	M.RESISTOR CH 1/16W 470	ERJ2RMJ471X
R4913	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4914	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	
R4915	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4916	ERJ2GEJ102	M.RESISTOR CH 1/16W 1K	
R4917	ERJ2GEJ562X	M.RESISTOR CH 1/16W 5.6K	
R4918	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	ERJ2GEJ151X
R4919	ERJ2GEJ472X	M.RESISTOR CH 1/16W 4.7K	ERJ2RMJ472X
R4921	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4922	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4923	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4924	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4927	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	
R6401	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R6402	ERJ3GEYJ470V	M.RESISTOR CH 1/16W 47	
R6403	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R6803	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	